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**The Journal**  
of the  
**Medical Association**  
of Georgia



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Volume XXVIII

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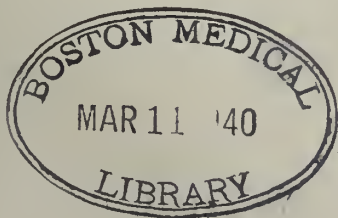
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## NEWS ITEMS

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pay all dues for 1940. Dr. Elliott makes a regular practice of paying dues for the following year in the early fall from year to year.

DR. HERBERT C. KIMBERLIN, Trenton Trust Building, Trenton, Missouri, asks that notice be given in the JOURNAL that a person giving his name as W. C. Curran, alias J. B. Powers, W. C. Cursey, has been operating in Missouri and passing worthless checks. Each check seemingly is drawn for \$30 and taken to some E. E.

N. & T. practitioner. He asks for a prescription for glasses and gets the difference in the physicians charges and the \$30 in cash. He is described as being about 5 feet 9 inches in height and weight about 155 pounds with blue eyes, light sandy hair, smooth shaven and ruddy complexion. Gave his age as 43.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on November 28. Dr. H. T. Compton read a paper entitled *Treatment of Fracture of the Hip in the Aged*; the discussion was led by Dr. H. H. McGee and Dr. E. J. Whelan. A moving picture which showed diagnostic methods of some urologic conditions was shown.

DR. CHARLES RIESER announces the opening of his office in the William-Oliver Building, Atlanta. His practice will be limited to genito-urinary diseases.

DR. AND MRS. D. H. GARRISON, Clarkesville, entertained the members of the Habersham County Medical Society and Auxiliary at dinner in their home on November 9.

DR. S. T. ELLIS, DR. J. W. DANIEL AND DR. LOUIE H. GRIFFIN, all of Claxton, entertained members of the Bulloch-Candler-Evans Counties Medical Society at dinner in the private dining room of the Georgia Hotel on November 15.

DR. BERT H. MALONE, Waycross, State Medical director for the Southeastern Region of Georgia, spoke before a meeting of the Evans County Woman's Club on November 21.

Confidential intercourse between physicians in Georgia and their patients is not protected by law. Such information should not be available, except when authorized by the patients. It has been suggested that each county medical society take some action and obtain the endorsement of their representatives in the General Assembly of Georgia. Since Georgia is one of the few states which does not have such a law, the physicians, our representatives and the public should be vitally concerned and urge the enactment of such a bill.

THE BIBB COUNTY MEDICAL SOCIETY, Macon, met at Ridley Hall on December 5. Officers were elected for the ensuing year.

THE WARE COUNTY MEDICAL SOCIETY met at the Okefenoke Golf Club, Waycross. Dr. W. F. Reavis and Dr. L. W. Pierce were hosts at dinner. Officers were elected for the ensuing year.

DR. AND MRS. W. F. COSTELLOW, Americus entertained members of the Sumter County Medical Society and Auxiliary at a dinner in their home on November 16.

DR. JOHN M. WALTON, Atlanta, regional medical director of the State Department of Public Health, spoke before a meeting of the Health and Welfare Council at Clio, Effingham County on October 30.

#### SOUTHERN MEDICAL ASSOCIATION MEETING

Georgia physicians who registered at the annual meeting of the Southern Medical Association, Memphis, Tennessee, November 22, 23, 24, 1939, were:

Allen, H. D., Jr., Milledgeville.  
Anderson, Wm. W., Atlanta.  
Atkinson, Harold C., Macon.  
Aven, C. C., Atlanta.  
Baird, J. Mason, Atlanta.  
Ballenger, E. G., Atlanta.  
Beasley, B. T., Atlanta.  
Bivings, Lee, Atlanta.  
Bowdoin, Chas. D., Atlanta.  
Bridges, R. R., Leary  
Broadrick, G. L., Dalton.  
Cathcart, Don F., Atlanta.  
Cooke, W. L., Columbus.

Davison, Hal M., Atlanta.  
Dew, J. Harris, Atlanta.  
Dickie, E. H., Chatsworth.  
Equen, Murdock, Atlanta.  
Erwin, H. L., Dalton.  
Fancher, James K., Atlanta.  
Fincher, E. F., Jr., Atlanta.  
Garner, J. R., Atlanta.  
Greenblatt, Robert B., Augusta.  
Hailey, Howard, Atlanta.  
Hamm, W. G., Atlanta.  
Irwin, Chas. I., Warm Springs.  
Jones, Jack W., Atlanta.  
Keen, O. F., Macon.  
Kitchens, S. B., LaFayette.  
Kite, J. H., Decatur.  
Kracke, Roy R., Emory University.  
Laws, Clarence L., Atlanta.  
Lowe, Wm. R., Midville.  
Martin, J. D., Jr., Atlanta.  
Matthews, W. B., Atlanta.  
Mays, J. R. S., Milledgeville.  
McCarver, W. C., Vidette.  
Michel, H. M., Augusta  
Minnich, W. R., Atlanta.  
Mulkey, Q. A., Millen.  
Muse, L. H., Atlanta.  
Norris, Jack C., Atlanta.  
Oppenheimer, R. H., Emory University.  
Parker, Francis P., Atlanta.  
Pittman, J. L., Atlanta.  
Poer, D. Henry, Atlanta.  
Pruitt, Marion C., Atlanta.  
Roberts, Chas. W., Atlanta.  
Sanderson, E. S., Augusta.  
Sandison, J. Calvin, Atlanta.  
Simonton, Fred H., Chickamauga.  
Slaughter, R. F., Augusta.  
Smith, M. R., Cordele.  
Stephenson, Chas. W., Ringgold.  
Tidmore, T. L., Atlanta.  
Torpín, Richard, Augusta.  
Traylor, Geo. A., Augusta.  
Turner, John W., Atlanta.  
Vinson, Frank, Fort Valley.  
Volpito, Perry P., Augusta.  
Walker, J. R., Atlanta.  
Williams, Wm. A., Macon.  
Wilson, Richard B., Atlanta.  
Wood, David L., Dalton.  
Young, W. W., Atlanta.

#### MEMORIAL FIRST AID STATION DEDICATED

CUTHBERT, GA., Nov. 2.—A memorial first aid station honoring the late Dr. George Young Moore, beloved Randolph County physician, was dedicated at Springvale on U. S. Highway 50, between Cuthbert and Eufaula, Tuesday afternoon by the Randolph County Red Cross Chapter at an impressive ceremony. This was the first of three stations to be dedicated to Randolph County physicians: Doctor Moore, Dr. Fred D. Patterson and Dr. A. L. Crittenden.



Dr. K. H. Walker, chairman of the Randolph County Red Cross, presided and the dedication exercises were opened with the singing of America. Mrs. Emilio Saurez of Cuthbert addressed the assemblage of people on "Red Cross First Aid Service" and the story of the station dedicated to Doctor Moore. Bruce Douglas, chairman of the first aid committee of the local chapter called the roll of the certified first aiders qualified to administer first aid through this station and presented them.

Dr. T. F. Harper of Coleman, president of the Randolph County Medical Society, gave a beautiful tribute to Dr. Moore.

Georgia Highway Patrolmen Burke and Forester demonstrated highway first aid service and Dr. Walker gave the official dedication.

The Girl Scout troop of Cuthbert sang taps at the close of the ceremony. A Randolph County travertine boulder with a solid bronze tablet bears the dedication legend.

The boulder was contributed by Dr. Hilburn Williamson of Albany from his travertine quarry near here and moved through the courtesy of Robert F. Burgin.

Dr. Moore was a native South Carolinian, but spent his life as a physician in Randolph County where he was a beloved doctor of the horse and buggy days.

—Albany Herald, Albany, Ga.  
November 2, 1939.

If interested in a new location to practice, write the Secretary-Treasurer of the Association.

## FIRST AID STATION IS DEDICATED

IS MEMORIAL ON DAWSON-SHELLMAN HIGHWAY TO LATE  
DR. A. L. CRITTENDEN

SHELLMAN, GA., Nov. 4.—The service dedicating a Red Cross emergency first aid station, as a memorial to the late Dr. A. Leroy Crittenden, was held Friday on the Dawson-Shellman highway.

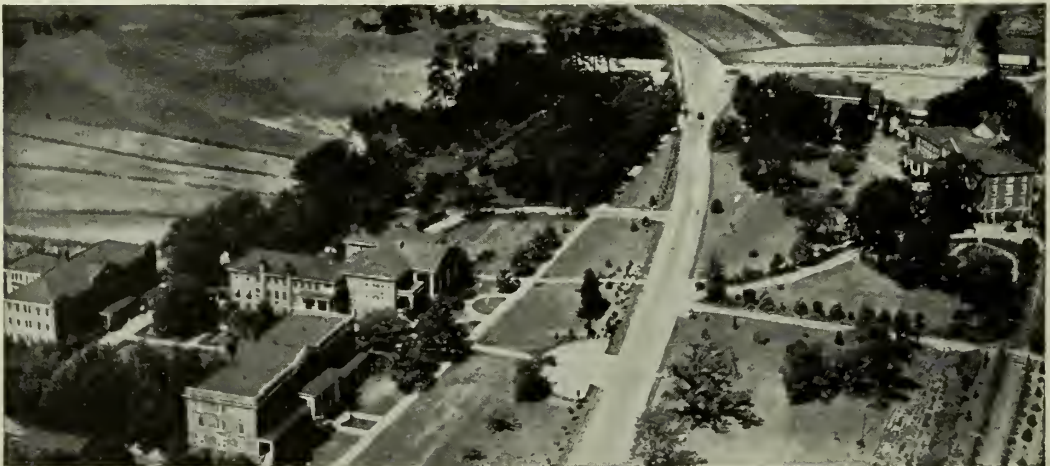
This is the second of three stations to be dedicated to Randolph County physicians: Dr. G. Y. Moore, Dr. Crittenden and Dr. F. D. Patterson.

Mrs. J. E. McGlaun, vice chairman of the county Red Cross chapter, presided and paid a beautiful tribute to Dr. Crittenden. Dr. J. C. Patterson, Cuthbert, president-elect of the Medical Association of Georgia, and Dr. F. M. Martin, Shellman, spoke, honoring this beloved physician. Mrs. Emilio Saurez of Cuthbert spoke on Red Cross first aid service and Dr. K. H. Walker of Cuthbert, chairman of the county Red Cross chapter, officially dedicated the boulder and station. The impressive service was closed with a prayer by R. B. Martin.

A large number of people from Shellman, Cuthbert and Dawson attended. There are fourteen certified first aiders in Shellman to administer services through this station.

—Albany Herald, Albany, Ga.  
November 4, 1939.

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# ALLEN'S INVALID HOME

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• H. D. ALLEN, M.D., Physician in Charge  
Department for Women



# THE JOURNAL

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Number 1

## MATERNAL MORTALITY\*

S. S. SMITH, M.D.  
*Athens*

On March 2, 1892, I graduated from the Atlanta Medical College after two terms of five months each. I located in Rockdale County, in April 1892, to practice my profession.

A few days after I arrived and began work I was called to an obstetrical case. I had never seen a woman in labor. Fortunately for me an old mid-wife was on the job. Shortly after I arrived the baby was born, followed immediately by the expulsion of the placenta. I thought she had turned wrong side out. The old mid-wife saw my plight and remarked, "She is all right." That mid-wife taught me how to tie and dress the cord.

After the third term was added to my Alma Mater, I went back in 1896-97 to take a course and found it altogether different from the old school, which was generally appreciated very much by all concerned.

During the first four and one-half years I saw more than one hundred babies born without a maternal death. One transverse presentation resulted; baby was turned and delivered dead, but the mother lived. I sent for forceps in another case but the baby was born before they arrived; what a blessing "the horse and buggy age." I used no anesthetic or pain reliever of any sort with any of my patients. I felt for a while I had wasted those four and one-half years, but, on the contrary, I now consider them the best schooling I ever had. All deliveries were in homes.

I mention the foregoing to show how successful the doctor would be if he did not know how to do anything. Certainly he should inform himself or try some other branch of medicine.

## *Infant Deaths*

I am not an infant specialist, but before going into my subject I would like to quote Bundesen on infant deaths:

"The number of infant deaths under 7 days of age has not been reduced to a greater extent because little has been generally known as to the relative frequency and importance of the various causes of neonatal deaths. Those who suspected the situation were not in a position to reduce the infant mortality.

"To determine accurately the cause of an infant's death, particularly in the neonatal period, first a satisfactory necropsy must be performed by a pathologist thoroughly familiar with infant pathology; second, careful consideration must be given by well trained physicians to the clinical history and laboratory results. Therefore in Chicago, during 1936, whenever an infant died a complete necropsy was obtained, if possible. An investigation of the clinical history and available laboratory results for every infant who died was made by trained workers. A complete obstetric history was obtained in every case."

The authors received the assistance and cooperation of physicians in Chicago, who, with the hospitals, made available for this study their records and case reports of infant deaths. The authors deserve the cooperation of every physician in the United States.

## *Pre-Natal Care*

On the patient's first visit to the office, examine her thoroughly. She should be measured. See that everything is in order—heart, lungs, etc. She should regularly visit the doctor's office once a month until the sixth or seventh month; after that, oftener. She should be brought up to delivery in the best possible condition.

Joseph B. DeLee says, "It is hard to understand that there are a few doubters of the value of pre-natal care. Tyler, Watkins and Walker (Yale 1934) do not accredit the conclusions of their own statistics which would show that such care is useless. Tamis and Clahr (Journal of the American Medical Association 109:195, July 17, 1937) collected figures from a hospital and decided that pre-natal study helps the baby, not the

\*Read before the Medical Association of Georgia, Augusta, April 28, 1938.

mother. Since seven women died of sepsis, six of whom had been under observation during pregnancy, one might deduce that the women saved from death from eclampsia, contracted pelvis, etc., died of infection acquired in the hospital. Certainly these should not be charged against pre-natal care. Grant Fleming, Dean of the School of Medicine, McGill University, says, "While we may have overemphasized pre-natal care we have not sufficiently stressed delivery care."

#### *Toxemias of Pregnancy*

So little is known about toxemia of pregnancy that the best is only guess work, but meeting indications as they arise to the best of our ability is the best we can do. Suggestions from a sympathetic doctor sometimes works wonders in these cases.

I saw a patient several years ago who had been hospitalized for some time, but her condition grew worse and she was sent home. She sent for me and told me of her pitiful plight, describing her feelings as best she could. Seemingly she vomited practically all she ate. I let her know, after an examination, that I did not think her condition was so bad, and could be relieved by a local application, if she would stand it for a few minutes. She agreed to it willingly. I then, through a bivalve speculum, applied pure carbolic acid to the cervix. I stayed with her some time and she said her nausea was gone. When I was ready to leave I assured her she would not need further treatment and advised her to eat whatever her appetite called for. She made an uneventful recovery. A fine baby was born several months later without any assistance. Psychology played a big part in her recovery. A meddlesome doctor can cause more trouble than a half dozen midwives, especially during labor.

I had one patient with blood pressure of 240 systolic. I at once started her on veratrum—3 to 5 drops given by mouth 3 or 4 times daily, with morphine sulphate  $\frac{1}{4}$  grain 1 or 2 times daily. Her blood pressure dropped well below 190. I called Dr. John Hunnicutt in consultation and he agreed with me. This patient had a living baby just before the seventh month.

When your toxemic patient's blood pressure begins to rise higher and higher, and she is headed for convulsions, why wait for the

convulsions, then fill her full of veratrum, bringing the systolic pressure to as low as 50, and with your back to the wall begin to fight like a bulldog to keep the veratrum from killing the patient.

Stroganoff is the most active proponent of medical treatment, believing that eclampsia is a self-limited disease (an infection) and that if the convulsions can be mitigated for a time, immunities will develop and the patient continue safely in her pregnancy, or labor will come on and she will deliver herself.

There are too many abortions; the fetus is killed, and possibly the mother. I have not had to produce an abortion in 25 years and have never regretted it.

#### *Syphilis*

Obstetricians should constantly be on the alert for this protean disease. Its baneful action is often discovered when least expected, and it spreads its blight on all three individuals concerned in the propagation of the species, even being transmitted to the third generation.

Ricord says that in Paris one in eight is syphilitic, and, while in America the conditions are better, the disease is not rare, and in its lesser manifestations, although quite common, are often not diagnosed. H. Peterson found that 5.6 per cent of routine gynecologic and obstetric patients showed a positive Wassermann reaction. At the Chicago Lying-in Hospital, 3.6 per cent of the ward patients gave positive results, but we do not consider the patient luetic unless the blood is repeatedly positive and with several standard tests. Negative reactions do not rule out the disease; in fact they are more apt to occur in the pregnant syphilitic than in others. Late in pregnancy, and in labor, a positive reaction may be obtained with the blood of a healthy woman.

#### *Delivery Care at Home or Hospital*

Home is safer than most hospitals. . . . .

A meddlesome medical doctor is the most dangerous thing in obstetrics. As soon as he reaches the patient he begins to hunt for something to do. If a little slow, her attendant, with a solemn face, suggests calling for a consultation. They meet and agree on what should be done, forgetting that 95 to 98 per cent of mothers will have their babies safer

if left alone. But frequently, with a sad face, the physician, all at once, with his consultant agreeing, decides to do some major operation as early as possible — cesarean, craniotomy, version or forceps, with possible death of mother, baby, or both, or possibly an infection crippling the mother for life. While Dr. W. W. Brown, who is now president of the Georgia Board of Health, was practicing medicine, he and I worked together a good deal. We did cesarean sections and all types of abdominal surgery in homes.

Dr. E. H. Kinnermer, of Bishop, Georgia, called me one night to help with a woman who was shot in the lower abdomen; the bullet pierced the uterus, severing the spinal cord of a seven months baby. We did a cesarean section but could not stop the bleeding, so we did a hysterectomy. We found the bleeder and ligated it. The snow was about six inches deep and a regular blizzard hit us, but the patient made a complete recovery.

Quoting DeLee again: "The report of the South Carolina Maternal Welfare Committee states that the maternal mortality problem is a rural one and will be for many years." It advises community nursing, physicians and material for home deliveries. Here and there in the literature comes statements, statistics and reports of cases that are beginning to shake our confidence in the hospital being the best place for maternal care. Irving (New England Journal of Medicine 217:693, October 28, 1937) reports 11,330 women delivered in the home service of the Boston Lying-in Hospital with only four deaths. In 1933-1935, of the 28 women admitted to the hospital after delivery in the home service, one died (of sepsis). Does anyone know of a hospital that can equal this record?

Our great writers shoot above the average man who is not capable of doing all the operations, but tries to at the expense of the lives of mothers, and who should call in a competent obstetrician for consultation, and not one of the same ilk, then maternal mortality would be greatly reduced.

#### *Labor Care*

Here is where our mortality rate stays so high.

As I have stated before, the patient should be brought to the intra partum period in the best possible condition. When labor begins

and you are called, go at once, carrying with you a complete sterilized outfit. Re-examine the patient for any abnormal condition that might exist, correct it if possible. Prepare as for any surgical operation, shave external parts, and make a rectal examination. Vaginal examination will not be necessary in more than one out of twenty cases. Do not hurry—watch. I have a folding steel table which I carry if I think it will be needed: a dining table is very good.

If uncertain in your findings don't fail to call another competent man. If you agree don't fail to empty rectum, if necessary, also the bladder. A too active and fidgety doctor can cause more trouble than a half dozen sob-sisters. The baby may be too large for the outlet, then the question arises what to do. Rest for a while, if the woman is in fair condition. When the cervix has not dilated as it should, two finger breadths, at this, the second stage, place on patient's tongue  $\frac{1}{8}$  grain morphine and  $\frac{1}{300}$  grain atropine. Tell her not to swallow it and let her know she will be relieved shortly.

When the physician reaches his patient, too frequently he begins to hunt something to do, some big surgery and usually finds this opinion backed by his consultant; they get busy to prove their diagnosis was correct; but remember, more postmortems will help wonderfully.

If this disgraceful mortality is not reduced I am in favor of importing a few of the Kentucky women to Georgia to train more of our good, sensible women to do the best work possible, then I believe this everlasting disgrace will not be tolerated any longer. A Justice of the Peace in every Militia District in Georgia with a woman's organization would be a great help. Mothers shall not die or we will know why. I believe we can reduce maternal mortality 50 per cent in twelve months.

---

#### DISCUSSION ON PAPER OF DR. S. S. SMITH

Dr. Wm. Willis Anderson (Atlanta): Discussing infant mortality before a session of the Medical Association of Georgia brings out many reactions among you. At first you may actually resent the subject, feeling that you and thousands of the physicians preceeding you have always been interested in preventing deaths in infants, so why should someone without any concrete suggestions harangue you further? And then you think that the mere fact that you sit and listen to a discussion



of this kind demonstrates your continued interest in bettering humanity. Next you realize that your highly specialized training enables you to serve your community in a way that no other profession can surpass, and that infant death rates deserve your consideration as much as tonsillitis, appendicitis and the many other problems you have to contend with in medicine. You, better than anyone, know the two chief things required to lower death rates are men and money.

We cannot blame the medical profession for the fact that the death rate from diphtheria continues to be the highest of any of the acute infectious diseases in Georgia. I talk diphtheria immunization to every family that brings a child into my office. Frequently among my regular followers I load a hypodermic with diphtheria toxoid and point it toward the baby and tell them that it is time to immunize. I am able to immunize one-third of my clientele. The Georgia Pediatric Society for years sponsored diphtheria immunization as their major objective. The Fulton County Medical Society has advertised the fact all over the city of Atlanta that children will be vaccinated, whether they are able to pay or not. Among the general population of Atlanta a very much smaller percentage (12 per cent) receive immunization before 5 years of age. Still, Dr. Abercrombie reported that diphtheria declined 15 per cent in the State last year.

How can we immunize more children against acute infectious diseases? First, there is indifference. The attitude of: "Oh well, my child is not going to die of typhoid fever" or, "I will have him vaccinated at some other time, doctor" is quite prevalent. Secondly, or perhaps even first, is the vast group of ignorant and poor—those who still have not heard of immunization, or who are unable to pay. Then there is a small group opposed to vaccination either from some creed they follow, or of fear of transmission of disease through the vaccination. All three of these groups must be constantly contacted. Since all children should be immunized against diphtheria between six months and one year of age, the campaign must be a continuous one. Health officers must constantly carry on educational propaganda, chiefly through the medical profession.

Would anyone dare to say that the medical profession is indifferent to the fact that over five thousand babies die in Georgia before they are a year old? These problems have been studied by your members at a great deal of expense and personal time contributed. We have to cope with congenital weaklings, prematurity, acute respiratory infections, diarrheas, etc. Most of these are in direct proportion to the economic and hygienic conditions under which some people live, and can be corrected only by bettering economic and hygienic conditions. Our federal government tears down blocks of tenement slums and puts up new apartment houses. What becomes of the former tenements of the slums? Some of them, I am quite sure, are unable to pay rent in the new apartments.

We are sent into communities to talk about reducing infant death rates. We see again your faces and the faces of others interested in the subject. How are we to get over beyond this interested group, further back to the group that is not interested? Even if we chased

them down individually I am quite sure there would be a small group that would refuse help of any kind, but undoubtedly we could help a vast number. The task is a never ending one, and discussions of this kind will occur long after you have passed on. Newer and different conditions will continuously arise, so that standards laid down today will not measure up to conditions of tomorrow.

What satisfaction it must have meant to you when your State health officer reported that the death rate from all causes decreased 9 per cent last year; that typhoid fever declined 29 per cent; that tuberculosis continues to show a steady decline, 11 per cent last year. These facts reward you for your ever constant interest in your work.

*Dr. S. S. Smith (Athens):* That paper was intended to be on maternal mortality, and the reason I have more than that on it is because your own Board of Health tacked it on and I couldn't help it. I didn't aim to mix the babies with the women. I wanted that put with the baby specialists, but they put it on and I couldn't help it. I am sorry they did; it had no business there.

If you want to know what will stop typhoid fever, sanitation; I have tried it.

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### SOME PRACTICAL POINTS IN MEETING POOR SURGICAL AND ANESTHETIC RISK IN SURGICAL DISEASES\*

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The honor of introducing general anesthesia for the alleviation of pain during surgical procedures and other conditions such as childbirth, belongs to Dr. Crawford W. Long, of Jefferson, our own Georgia physician who in 1842 gave his knowledge to the world so that all people could enjoy its benefits.

Recent advances in surgery, dentistry and other special fields have greatly broadened the field of the operator. Accordingly these advances have required that an unusually large proportion of the poor risk cases should be handled by an expert medical anesthetist. Hence it is not surprising that anesthetic deaths occur even in the practice of the most expert. However, it has been reported that one third of the postoperative deaths in chronic surgical conditions are due to lack of preoperative diagnostic skill to ascertain the reserve power of other organs, or the extent of primary disease, or the number and influence of concomitant diseases.

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The actual anesthetic risk will depend upon anesthetic tolerance on the one hand, and upon the nature of the proposed operation on the other. Patients who present a good risk will come through with their lives regardless of the anesthetic used or by whom it is given. For patients who present a substandard risk the ability of the anesthetist may mean the difference between life and death.

The anesthetist should apply certain critical tests which have been adopted as a result of experience, as for example, Moot's index. This formula provides an approximate index to the cardiac reserve. It is obtained by multiplying the pulse pressure by 100 and dividing this by the diastolic pressure. The answer is approximately fifty in the normal subject. For example: take the normal pulse pressure at 40; and 40 times 100 divided by 80 diastolic pressure gives 50 per cent. Patients presenting an index between 40 and 60 per cent show ample cardiac reserve. If the index is below 25 or above 75 per cent, the risk is too great.

The simplest, and probably the most reliable, of these tests is Henderson's breath-holding test. This is exploited as being capable of giving warning in such conditions as a state of acidosis, cardiac, respiratory or blood diseases. The test is performed when the patient has been in the reclining position for at least fifteen minutes. After observing several normal respirations one pinches the nose of the patient at the end of a normal expiration and instructs him to keep his mouth closed until it becomes absolutely necessary to breathe. Pinching the nose of the patient aids will power, prevents involuntary breathing and so yields a more accurate result. During the apneic pause the patient is being reassured that no harm will result from the test, and to exercise all his determination to hold his breath for the longest possible period. The normal period is 25 to 30 seconds. Severe acidosis may be expected when only a 5 to 10 second period is possible.

Oxygen starvation which precipitates even the slightest anoxemia or acidemia is dangerous in patients suffering from hemoglobine-mia, shock, cachexia, oxygen starvation, cardiorenal, pulmonary lesions and goiter or other conditions of disturbed metabolism in

which there are frequently excess acid products and a consequent tendency to acidemia.

It is important to realize that assessment of anesthetic tolerance must not depend upon one test or index, but should be deduced from the maximum of information obtainable by the anesthetist. By consideration of such information it should be possible to classify patients into three groups, those who present good anesthetic tolerance, those whose anesthetic tolerance is probably adequate, and those in whom anesthetic tolerance is gravely inadequate.

From the above tests the anesthetist is in a position to choose the agent or agents best suited, the route of its administration and to some extent the course of anesthesia which will give the greatest amount of relaxation, for the condition at hand, with the least toxic effect upon the patient. Complete cooperation between surgeon and anesthetist is of the utmost importance at all times.

I heartily agree with Hussy<sup>1</sup> who states, "The choice of a competent anesthetist is far more important than the choice of the anesthetic and the greater the degree of risk the more important this choice becomes. The risk of anesthesia can be lowered by the use of a medically trained anesthetist who has an intimate knowledge of the physiologic action of the anesthetic agents at his command together with skill and experience in administration."

The selection of the agent or agents and the technic of their administration should only be determined after careful physical examination of the patient and assessment of the anesthetic tolerance as described above. It sometimes happens that the most convenient agent is not the safest; whenever safety conflicts with convenience the latter must be sacrificed.

The choice of an anesthetic agent or agents or technic involves a balancing of four factors:

1. The anesthetic risk presented by the patient.
2. The toxicity of the drug.
3. The convenience of the surgeon.
4. The psychic reaction of the patient.

*Anesthetic risk.* Broadly, this depends upon the state of the circulatory and respiratory systems, the age of the patient and the nature of operation proposed.

*The toxicity of the drug.* In poor risk patients the least toxic anesthetic available should be selected. Of the inhalant anesthetics ethyl chloride and chloroform are the most toxic. The toxicity of ether is less and the anesthetic gases least of all. Local anesthetics, though not free from toxicity, carry the minimum of damage. Spinal anesthetics, however, involve circulatory depression rendering their value questionable in poor risk patients; they should never be used simply as a convenience at the risk of the patient's life.

*The convenience of the surgeon.* Usually in normal subjects some concessions may be made to the convenience of the surgeon, but in poor risk patients convenience must be subordinated to consideration of safety.

*The psychic reaction of the patient.* Local and regional anesthetics are undesirable in highly nervous patients.

*Shock and hemorrhage.* When possible the patient should have a direct blood transfusion; otherwise saline with glucose intravenously before the anesthetic is started or at the same time. Local infiltration with novocain will require a less profound inhalant anesthetic and produce less toxic effect upon the patient.

*Grave sepsis.* This should receive about the same preoperative treatment and anesthetic.

*Local anesthetic.* It has been shown in animal experimental work when the animals are narcotized with some of the barbiturates they will tolerate increased dosage of cocain or novocain without fatal consequences, therefore it would seem to be wise to resort to some of the barbiturates before administering spinal or regional anesthesia.

When patients have gone into a depression following an initial spinal anesthetic I have noted a remarkable improvement after administering a mixture of one of the gaseous agents with high oxygen concentration, and carbon dioxide for a few minutes.

I have also observed, as have others, that in some instances there is a sudden rise in blood pressure and an increased pulse without apparent cause. This may be due to two causes other than the sudden loss of blood or

marked trauma, etc. First, the patient may have an obstructed air way; the sudden rise in blood pressure and increased pulse rate will usually return to or approach normal when an adequate air way is restored. Secondly, when the filtration method is being used we may get about the some symptoms as above. By changing the soda lime these readings will also return to or approach normal.

The untrained medical anesthetists are handicapped in their work because they have not been taught either to recognize or to interpret the reaction to anesthetic agents of the human machine in health and disease.

From the American College of Surgeons Hospital Standardization report for the year 1934, I quote, "No department of anesthesia should function without the supervision of a competent medical director, a specialist in anesthesia who has a profound knowledge of his specialty. He must know how to evaluate the risk involved, and how to treat them. In fact, he must be as well equipped with medical knowledge as any clinician in the hospital; otherwise it is impossible for the surgeon and the internist to place complete confidence in his judgment. Through the efforts of an efficient anesthetist it is possible for the incidence of postoperative mortality and morbidity to be reduced considerably and the end results improved. Anesthesia is an important service in the hospital in as much as it is known to be an influential factor in the end results of treatment. Because of its extensive ramifications and its significant effects it has become a specialty in itself, necessitating specially trained and qualified personnel for its administration. Unfortunately, the administration of anesthesia in some hospitals today leave much to be desired. Considerable improvement can be made, however, by employing only experienced anesthetists."

In closing may I urge greater cooperation between surgeon and anesthetist, thereby converting many fatalities into successes, and promoting closer fellowship.  
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The Medical Association of Georgia will hold its Ninetieth Annual Session at the Biltmore Hotel, Atlanta, April 25-29, 1939.

# THE CLASSIFICATION AND TREATMENT OF OBESITY\*

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Obesity is a relative term. Defined<sup>1</sup> as "an excessive accumulation of fat in the body; corpulence; fatness.", the vagueness of this definition leads to misunderstanding. A better definition might be: "A disproportion of body fat, either local or general, with or without abnormal weight." Individual variation is so great that it would seem best to leave the question to the physician to determine whether or not the patient is obese. Our present tables of normal weights for age-height-sex are recognized as no longer suitable for our present needs. The average height of children in the United States is about one inch over that of their parents. So the term obesity applies only to those persons whose weight and figure have definitely departed from the range of what today appears to be normal. We no longer judge beauty of figure by the measure of the deep bosom and spindle waist, or other vagaries of fashion. In fact, a person may be obese and still have a weight which corresponds to the normal. One may have a thinness of some part or parts of the body with increased adipose tissue in other parts producing a localized disproportion. And yet, such a disproportion is an obesity and, as such, requires treatment. It is often remarkable how marked may be the alteration in body contour under proper therapy, without change in body weight. Ebstein<sup>2</sup> is said to have divided obesity into three stages: the *enviable*, followed by the *comical*, and last, the *pitiable*. Beckman<sup>3</sup> reminds us that "overweight is a matter deserving serious attention for the following reasons: it predisposes to a number of diseases, particularly diabetes mellitus, gout, cholelithiasis and arteriosclerosis; it lowers the resistance against infections; it greatly increases surgical risks; and it causes considerable inconvenience and even suffering to its victims." Friedenwald and Ruhrah<sup>4</sup> give Oertel the credit of pointing out the value of weight reduction in cases of obesity with heart disease. They also

mention good results following weight reduction in cases of obesity associated with bronchitis, and also with chronic interstitial nephritis. The serious effect of obesity on the expectancy of life is reflected in the statistics of every life insurance company.

TABLE 1  
Standardized Death Rates per 100,000 for Specified Causes of Death—All Ages Combined . . .  
By Weight Classes

CAUSES OF DEATH	DEATH RATE PER 100,000		
	Under-weights	Normals	Over-weights
All causes	848	844	1,111
Circulatory diseases			
Organic diseases of heart	65	80	121
Angina pectoris	14	16	35
Diseases of the arteries	17	23	38
Acute endocarditis and pericarditis	6	8	13
Nephritis, acute and chronic	63	82	141
Cerebral hemorrhage and apoplexy	49	70	110
Paralysis	12	14	17
Cancer	62	61	68
Diabetes	9	14	36
Tuberculosis, all forms	126	64	30
Pulmonary tuberculosis	115	57	26
Pneumonia, lobar and unspecified	70	63	59
Influenza	20	20	28
Appendicitis	15	17	20
Accidents	55	60	67
Suicides	27	24	31

TABLE 2  
Mortality in Persons 25 Per Cent or More Overweight Per Cent Above Normal

DISEASE	Death Rate
Organic Heart Disease	73
Angina Pectoris	148
Acute and Chronic Nephritis	160
Cerebral Hemorrhage	135
Diabetes	1,026

It is not necessary to quote further statistics as to the detrimental effects of overweight in regard to length of life, or susceptibility to disease. The laity are fully conscious of the value of a trim figure, though they may desire it more from the standpoint of beauty rather than comfort and health. It would seem that men are more lax than women in their attention to girth control. And yet, as the chief wage earners, they should be the ones most vitally interested in this life-lengthening condition. It should be remembered that there is just as much adipose tissue stored within the body around the vital organs as there is under the skin. A visit to a slaughter house or packing house would serve as a forcible reminder to those who doubt this fact. Frequently a man will consult his physician for shortness of breath, and a choking sensation on exertion or after a full meal, when the trouble is not primarily

\*Read before the Medical Association of Georgia, Augusta, April 29, 1938.



cardiac in origin, but due to an excessive accumulation of adipose tissue about the heart, lungs and within the abdomen. Lissner reported several cases of internal adiposity which he termed "internal myxedema." A definite reduction in weight brings about a prompt and refreshing relief from the dyspnea and choking.

The etiology of obesity is still not fully understood. Many still believe with Sansum<sup>5</sup> that excessive food intake with insufficient exercise accounts for all obesities, and treat all patients with diet and trained exercises. Palmer<sup>6</sup> and Beckham<sup>7</sup> agree that the cause is unknown. Hagedorn, Halten and Johansen<sup>8</sup> state that obesity cannot be due exclusively to over-nutrition, but to a disturbance of the regulation of the combustion process in the organism. They found the respiratory quotient in obese patients lower than in normal persons. They conclude that obesity is due to an abnormally increased transformation of carbohydrates and fats. Newburgh and Johnston<sup>9</sup> argue the extreme in dietary etiology. Based on water retention experiments, they show that all obese patients lose weight on a very low caloric intake. This is equivalent to slow starvation, which will reduce anyone, whether obese or not. The initial gain on a low caloric intake recorded by some of their cases, indicates an abnormal food metabolism, and in itself indicates the advisability of combining restricted diet with some other therapy. The influence of age on weight is apparent, for as the normal person grows older he puts on a little more fat; at 30 years he is about 10 pounds heavier than at age 20, and at 40 years another 10 or 12 pounds have been added. Bonilla<sup>10</sup> quotes Fonseca that hyperinsulinism is constant in obesity. Sometimes it is due to a greater production of insulin, and at others to the lack of antagonistic hormones, which correspond to the thyroid, pituitary and genital obesities, but it is always the insulin which produces the obesity. The fundamental cause, according to Cecil<sup>11</sup> is that the calorific value of absorbed food is greater than the total expenditure of energy. Lissner<sup>12</sup> recognizes the endocrine factor in endogenous obesity, and cites the sudden obesity at the menopause. Kern<sup>13</sup> concludes that, no matter how caused,

obesity in a medical sense is a pathologic condition.

An experience of some fifteen years dealing with such patients leads one to several definite conclusions regarding obesity. First, the types of overweight. McLester<sup>14</sup> classifies obesity into *alimentary*, *constitutional* and *endocrine*; the constitutional type being those patients who do not respond to treatment. Another classification<sup>15</sup> is *exogenous* and *endogenous*. The writer's classification is as follows:

#### CLASSIFICATION OF OBESITY

A.—*Exogenous*

B.—*Endogenous*

Thyroid

Pituitary

Gonadal

Pancreatic (Hyperinsulinism)

C.—*Mixed*.

Exogenous obesity is due to over-eating, under-exercising, or both these factors. According to Cecil<sup>16</sup> it was Von Noorden who calculated that an excess of only 200 calories a day in the food intake would lead to a gain of 24 pounds in a year. This theory is denied by McLester<sup>17</sup> who suggests that there is a body mechanism to regulate weight. The so-called hereditary and constitutional types of obesity may be just family habits of over-eating or indolence. With the constantly increasing number of places offering refreshment in addition to regular meals, and with the tremendous increase in the sale of sweetened drinks, it is a habit among many to over-indulge. Very few people do not over-eat. When one considers the fact that the average person eats three meals a day, and yet at social affairs eats or drinks an additional amount, and undoubtedly during the day has indulged in some carbonated beverage which is chiefly carbohydrate, we cannot but admit that the average person has an excessive caloric intake and that it is overbalanced in carbohydrates. This explains the increasing number of alimentary glycosuria cases which one encounters in the daily run of practice.

The advent of the automobile has lessened the daily amount of exercise for many. Especially is this noticeable in men who were athletic in college and who neglect physical training after entering business. The common fallacy of including all cases of obesity as exogenous may probably be attributed to the frequent observation that individuals



whose daily occupation requires much muscular work are seldom overweight. However, the true exogenous cases will readily respond to diet and exercise. Fatty deposits of long standing acquire a lessened blood supply and become more or less walled off by connective tissue so that absorption is difficult. It is the recent fatty deposit which responds most readily to obesity treatment. The usual method is to select a diet giving one-half to two-thirds of the usual diet, with suitable exercises. The diet is restricted in the most fattening foods, carbohydrates and fats. The Kenyon diet is practical for everyday use. It is sugar, starch and fat free, and therefore must be supplemented by Haliver oil and yeast. Yet it is satisfactory from the standpoint of appetite and has proven valuable in many cases of exogenous obesity. Theoretically this treatment should reduce the weight of all patients with obesity, but as Howell<sup>18</sup> admits "it seems true that individuals vary greatly in the response they make to such treatment, and we must recognize that there are other factors concerned about which we know very little."

Several investigators, including the writer, have found moderate success in the use of benzedrine sulphate in certain patients with overweight. This drug must be under the control of the physician at all times, but has been of benefit when thyroid was of little effect. It does not have the toxic effects of thyroid and yet stimulates the metabolism. Dinitrophenol and Dinitrocresol have been advocated and used during the past five years. Like thyroid, they have the power of raising the body metabolism. Cutting and Tainter discovered that by means of these drugs the metabolism could be raised to plus 50 without untoward symptoms, provided the patients remained under strict medical control. Dinitrocresol is twice as powerful as the dinitrophenol, and it should be emphasized that serious toxic effects have been reported from all parts of the country, including a number of deaths. Many competent clinicians have stopped the use of these drugs because of their unreliability and treacherous effects.

Various attempts to satisfy the ravenous appetite of obesity patients have resulted in the use of several types of food substitutes. These food powders are taken in fruit juice

instead of a meal twice daily; the third meal to be lean meat, salad, fruit and two non-starchy vegetables. The lessened volume of food gradually causes a sense of satiation from less food bulk so that the appetite is curbed. However, such food substitutes should be employed for short periods of time only, with rest periods between. As to the large assortment of cake substitutes, bread substitutes, sugar substitutes, etc., it seems that these are expensive to keep a weak-willed patient on his diet. Personally I have not seen the need for such aids, and certainly do not recommend them. The use of glucose, however, between and before meals is often of great value in weight reduction; of course combined with a reduction diet.

The second type of obesity, the endogenous or glandular type, is quite rare when found unmixed with another type. Occasionally such a patient is encountered whose response to endocrine therapy is perfect, without regard to diet. I recall one such patient, a young lady of 20 years, whose adiposity of 15 pounds was localized in her hips. She reduced to the ideal calculated weight within two weeks on glandular therapy alone. At the same time she ate candy which previously she had strictly abstained from eating. Treatment, of course, depends upon the condition discovered. It is always substitution therapy for some deficiency of the thyroid, pituitary or gonads. In addition, hyperinsulinism has been mentioned more and more frequently as an additional etiologic factor.

Cretinism and myxedema are classic examples of thyroid obesity. However, there are many cases which cannot be so classed, but which have a low basal metabolic rate, hypothyroid markings and obesity. A majority of these patients are children. It is no longer a matter of pride for parents to have a child weighing 8 or 18 pounds at birth. Such a birth weight is presumptive evidence of hypothyroidism. As time goes on, sluggish mentality, stunted stature, with other signs of physical immaturity are associated with obesity. Thyroid extract produces a remarkable change in such cases. It is at times necessary to continue this medication for years, depending upon the degree of activity of the patient's own thyroid. No great effect is seen in cretins, although over a long

period of time an improvement may be noted. Age seems to play an important part in treatment; the older a patient, the more difficult to reduce weight. The body contour has been described as typical in thyroid obesity, uniform all over the body, but it is only an index to the cause and should not be employed to make a snap diagnosis. Pads of fat on the dorsum of the hands, subnuchal region, supra-clavicular fossae, and large buttocks, are characteristic findings. Examination of the heart and lungs, and the blood and urine, should always precede any treatment, and a basal metabolism test should be made at least once. It has been shown by Howard<sup>19</sup> that congenitally absent teeth are the rule in typical hypothyroid cases, as well as early decay. The palate may be high and narrow.

It is dangerous to strictly diet obese children, for during the period of growth the body mechanism is thereby deprived of the essentials found in a general diet. Restriction of carbohydrates is advisable, particularly if the patient has been taking an excessive amount, but the caloric intake should not fall below the estimated caloric intake for the ideal weight. When thyroid extract is given, the dosage should be minute and under the careful and frequent supervision of the physician. The doses are given morning and noon, omitting all thyroid after 3 P. M. as it may tend to produce insomnia when given later. It is best never to tell a patient to take thyroid without warning him how long to take it. If unable to return at the appointed time the patient should either omit or reduce the dose. One patient who did not return as advised, continued to increase the dose until taking 72 grains of American thyroid daily until spontaneous hemorrhages occurred. This illustrates the danger of self-medication. Practically all the patent medicines sold for obesity reduction depend upon their thyroid content for effect. The danger is that, although thyroid will reduce the weight of most patients with obesity for a time, after it is omitted the obesity is aggravated in cases which were not thyroid in nature. Patients thus wrongly treated are much more difficult to reduce than if they had left thyroid alone.

The anterior and posterior lobes of the pituitary body are concerned with the

metabolism of carbohydrate. Just how this is accomplished is not yet fully understood. However, the administration of these extracts by hypodermic or by mouth will cause satisfactory weight reduction in many pituitary cases. At present the anterior lobe is supposed to have the main influence. Kestner and his coworkers were able to cause reduction of weight in healthy and diseased persons by using anterior pituitary and thyroid, the latter in 1/10 grain doses. Dystrophy adiposogenitalis is considered to be a bilobar pituitary failure, and both lobes are used in the treatment. The body contour is said to be characteristic in pituitary obesity, localizing in the hips, abdomen and shoulders. Too much confidence should not be placed on these localized deposits, as many of these cases are mixed with other glandular insufficiencies. Then again one sees abdominal obesity in cases of simple gormandizing. Not infrequently better results attend the addition of a minute dose of thyroid to the pituitary therapy. The age at which this type of obesity usually occurs is in the 'teens and early twenties. Food craving may be present. Proper treatment should not only reduce the weight but often diminish the appetite. The glucose tolerance test should always be employed in making the diagnosis. Also the entire endocrine chain should be tested out as far as possible to insure thorough treatment. Five pounds a month is the usual goal rate of reduction, but the first few weeks may see a much larger loss without harm. The writer once reduced a patient's weight one pound daily for thirty days, but this is unusual.

The gonads (testes and ovaries) have been shown to influence the production of obesity. Usually this is a mixed type involving other glands besides the gonads, particularly the thyroid or the pituitary. The amount of estrin present in any patient may be determined by assay of the blood and urine. The APH (anterior pituitary hormone) may similarly be tested. The male sex hormone may be assayed, but the methods employed are as yet inaccurate. The body contour is described as either localized adiposity over the trochanters, or a heavy torso with disproportionately thin legs, the so-called middle third obesity. Excess of pancreatic secre-



tion, of hyperinsulinism, eventually may be found to be the cause of all endogenous adiposity. The definite results obtained with thyroid, pituitary and ovarian hormones show a relationship linked up with this secretion. There are cases which do not classify under the insufficiencies. They will gain weight on a very low caloric intake. They seem perfectly well, and have no complaints except gaining weight. These cases may properly come under the class or group of hyperinsulinism. Much remains to be done to clarify this mode of action.

The largest group of obesities is the mixed types. This constitutes both exogenous and endogenous characteristics. In my experience, very few patients do well without dietary restriction. A combination of the proper hormonal therapy with a well worked-out diet brings about the best results. The diet I have used is based on the ideal and not the actual weight of the patient. Based on the ideal weight for age-height, using 18 calories per kilo of body weight, and calculating 1-1½ grams of protein per kilo, fixed diets are worked out for each five pounds variation in weight. The value of such a diet is that, although the patient will reduce while on it, he will never fall below his ideal weight, and in fact will only approach it. I feel that when a patient reduces steadily to a point roughly approximating the calculated weight and then stops, no further reduction should be attempted, accepting the stopping point as the ideal weight for that individual. A true glandular obesity does not respond to a moderate reduction diet with weight loss. One patient followed the Hollywood diet and gained one pound daily for two weeks. This fact alone was suggestive that he was suffering with a glandular imbalance, which was later discovered to be thyroid insufficiency. Rowe<sup>20</sup> and his associates used a reduction diet based upon the basal metabolic rate with good results. It is my conviction that the fixed low caloric diet of 600-800 calories as formerly used, is far less to be preferred than one arranged for the individual based upon either his basal rate or calculated ideal weight. The fluid intake should be restricted.

Very little has been said about exercise, although its importance must not be minimized. Walking, golf, calisthenics, gymnasium

exercises under proper supervision, massages, bicycle riding, horseback riding and swimming are encouraged according to the case. The individual physician, with his personal knowledge of the patient is best qualified to state just what and how much exercise each obese patient should take.

#### Summary

Obesity is classified as *exogenous*, *endogenous* or *mixed* types. It may not necessitate overweight if there is a disproportion present in some part of the body. Insufficient function of the thyroid, pituitary and ovaries may cause obesity. Hyperinsulinism is also a cause of overweight. Proper diet and exercise are essential to maintaining normal weight. Diets based upon ideal and not actual weight are valuable. Carbohydrate and fat should be markedly reduced in such diets. Children should be allowed some of all kinds of food to provide for their growth demands, but reduced in carbohydrate and fat. The danger of overweight, as well as the need for close personal supervision of treatment, is stressed.

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#### VITAMIN C: METHODS OF ASSAY AND DIETARY SOURCES

The facts and comments presented by OTTO A. BESSEY, Boston (*Journal A. M. A.*, Oct. 1, 1938), in this review on the methods of assaying vitamin C serve to give a general idea of the present state of the subject. Chemical methods have rapidly replaced vitamin C determinations by bio-assay for many types of investigation. However, the more specific animal tests continue to be necessary in order to avoid the risk of misinterpretation of the chemical tests. Guinea pigs kept on certain purified diets fail to gain weight, and the specific pathologic changes of scurvy develop. The degree of protection or cure of the deficiency bears a quantitative relation to the amount of the vitamin administered. This principle forms the basis for biologic methods of vitamin C analyses. The dietary sources of vitamin C are discussed.

## DISSECTING ANEURYSM OF THE AORTA

*Report of Case*

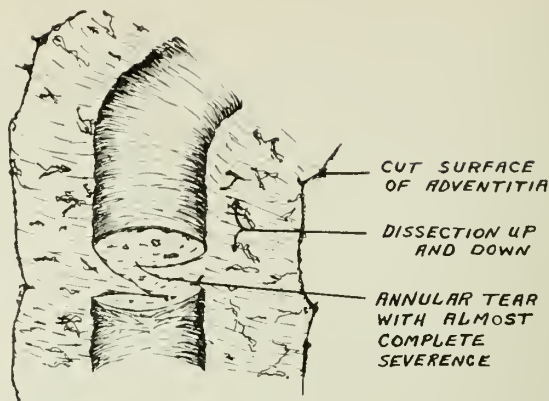
T. STERLING CLAIBORNE, M.D.

*Atlanta*

This is a case report of a patient with dissecting aneurysm of the aorta in whom the diagnosis was made ante mortem, and also calls attention briefly to the etiology of the condition.

Aneurysm suggests a diagnosis of syphilis, but dissecting aneurysm is not a result of syphilis except in rare instances. Dissecting aneurysm develops in an aorta damaged by arteriosclerosis, usually with hypertension. Rupture of the intima of the aorta occurs and a column of blood dissects between the layers of the media, most often down the abdominal aorta and it may extend out along the walls of any of the large arteries. Hamburger and Ferris,<sup>1</sup> and Blackford and Smith<sup>2</sup> have noted dissection up the carotid arteries. The usual cause of death is rupture of the aneurysm into the pericardial cavity, but rupture may also occur into the pleural cavity or elsewhere.

Rupture of the intima and dissection of the aorta usually causes sudden and severe symptoms. Pain is usual and it is constant, although its location may vary as dissection progresses. More frequently pain starts in the upper back and later goes through the chest and into the abdomen. Radiation into the arms may take place as in coronary occlusion. The terrific shock to the patient may be manifest by collapse but patients with this condition have been able to walk and get about on their own volition. Signs of interference with the peripheral circulation are most helpful to diagnosis. Any vessel may be occluded where it enters the aorta; a difference in pulse and blood pressure in the extremities often results. Impairment of the circulation here causes coolness and paleness of an extremity. Carotid artery occlusion makes hemiplegia a sign of dissecting aneurysm and fainting occurs at the onset with frequency.



Prior to 1938 twenty-four cases of dissecting aneurysm were reported in which the diagnosis was made before death. Other cases reported since then include one by me<sup>3</sup> and two by Hamburger and Ferris. An additional case report follows:

### *Case Report*

*History:* The patient was a 65-year-old Jewish woman who was first seen on the day of her death, July 25, 1938. Although her blood pressure had been elevated (200/120) for several years, she had been able to carry on her household duties until that day. She had had a negative Wassermann blood test and had no history of syphilis.

On the morning of her death she became ill suddenly, about five minutes after she got out of bed. She said, "Something terrible is happening to me." She complained of severe steady pain which began in the mid-dorsal region and which, in a few minutes, radiated directly through the body and to the abdomen. Within five minutes she felt numbness and pain in the right leg but within thirty minutes this sensation was less intense. She vomited a few ounces of fluid streaked with fresh blood.

*Examination:* The patient was seen thirty minutes after the attack began. She was in bed groaning with pain. The skin was cold and moist and moderate cyanosis was present. The pupils were equal in size and reacted to light. The veins of the neck were not distended and the carotid arteries were neither enlarged nor tender. The pulsations of the right radial artery were less strong than those of the left. Estimations of the blood pressure were: Right arm 140/110, left arm 170/115. The right leg was cool and cyanotic as compared with the left. Pulsations of the arteries in the right leg could not be felt; in the left they were present, rate 70. The area of cardiac dullness was normal. The heart sounds were forceful, and a long, rough systolic murmur of unusual character was heard over the manubrium. There was no diastolic murmur, and no thrill. Examination of the lungs showed no abnormalities.

A diagnosis of dissecting aneurysm of the aorta was made because of the character and the location of pain, evidence of interference in the circulation to the right leg and arm and the peculiar type of murmur directly under the manubrium. The patient became more com-



fortable after receiving 1/3 grain of pantopon and she rested until sudden death occurred four hours later.

*Necropsy:* The examination was performed by Dr. Warren B. Matthews. The pericardial sac was distended with 500 cc. of blood as a result of rupture of the dissecting aneurysm into it. The heart did not appear enlarged. The valves of the aorta were competent. The rupture of the intima was located 10 cm. above the aortic valve and the aorta was literally blown apart, being held together by a strip 0.5 cm. wide (Fig. 1). The dissecting column of blood, about 1 cm. in diameter, continued along the posterior wall of the aorta to the bifurcation and then a few inches down the right iliac artery.

### Summary

1. Attention is called to the fact that dissecting aneurysm of the aorta results generally from arteriosclerosis. Unlike other types of aneurysms it is rarely seen in syphilitic persons.

2. A case of dissecting aneurysm of the aorta in which the diagnosis was made clinically is reported.

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### THE PRESENT STATUS OF THE SERUM THERAPY OF LOBAR PNEUMONIA

M. A. BLANKENHORN, Cincinnati (*Journal A. M. A.*, Oct. 1, 1938), states that complete typing of all cases, through the entire thirty-two types, is the key-stone of serum treatment and may provide the necessary information leading to the prevention of pneumonia. In parts of the United States in which typing has been practiced, treatable types comprise more than 50 per cent of all cases of pneumonia, save only in certain districts of the South. Now that other therapeutic serums (V, VII, VIII and probably many more by the device of rabbit serum) have been developed, the percentage will be higher. Neufeld typing of the sputum and cultures of various body fluids is a rapid and accurate method of bacteriologic diagnosis of pneumococcus types. The selection of patients for efficient and satisfactory treatment requires early diagnosis by the physician and intimate consultation with the bacteriologist. Serum must be given in adequate dosage by vein, and a double dose must be given when blood cultures are positive. Serum must be injected slowly after sensitivity tests are found negative, but the entire dose should be given during the first twenty-four hours. Serum accidents have been extremely uncommon and the danger of reactions should rarely preclude treatment. Refined and concentrated horse serum for type I and type II pneumonia when given during the first twenty-four hours is a specific comparable to the best specific biologic remedy, save only diphtheria antitoxin. When given within the first four days of the disease, the mortality may be reduced 50 per cent.

### SURGICAL TREATMENT OF GALLBLADDER DISEASE

J. C. PATTERSON, M.D.

Cuthbert

Gallbladder disease is fairly common. Babcock stated that 20 per cent of all women and 4 per cent of all men eventually have gallstones.

In this paper I shall not attempt to discuss the rare conditions of the gallbladder, such as tumors, malignancies, tuberculosis, actinomycosis, etc., but shall confine my remarks to the surgical treatment of acute and chronic infections, with and without stones. These surgical procedures are: (1) cholecystostomy, or drainage of the gallbladder; (2) cholecystectomy, or removal of the gallbladder; and (3) choledochostomy, or drainage of the common duct.

Nor do I have time to discuss the causes of these conditions. Suffice it to say, the exact cause is unknown. It was first held that infection was the primary cause, then stasis in the bile passages, then disturbance of the cholesterol metabolism; but now all of these factors are being questioned.

The story of gallbladder surgery is one of contradictions. Operation on this organ can be one of the easiest or one of the most difficult. For example, contrast the large gallbladder packed with stones, with a long cystic duct, in a thin person in whom, when the abdomen is opened, the gallbladder pops into the incision and is easily removed to the contracted gallbladder, bound down with adhesions and stones in the common duct, of a fat patient whose condition is poor.

Likewise the results are contradictory, as Mrs. H., who had a diagnosis of gallbladder infection, because of indigestion, gaseous eructation, attacks of right upper abdominal pains, and tenderness, and who, at the operation, had a gallbladder with a thickened wall, covered with many adhesions to the stomach and duodenum, but no stones, and no apparent liver damage. One would expect her to be perfectly well, and she was for six years; then she began to have indigestion, food distress, fullness and vomiting, and the x-ray showed her stomach did not empty, necessitating a gastro-enterostomy. Contrast her re-

sult to that of Mrs. L., who was intensely jaundiced, extremely ill, and at the time of the operation showed many stones with pus in the gallbladder, and the liver enlarged. One would think her liver so badly damaged that she could never recover, yet she has recovered completely.

There is no type of surgery, unless it be thyroid surgery, where it is more important to individualize your patients and by proper medical treatment bring them to the operating room in the best condition. The patient is apt to be extremely ill, possibly jaundiced, with considerable liver damage. These conditions can be overcome by rest, hot or cold applications, emptying of bowels, high carbohydrate diet, repeated intravenous administration of glucose and saline until the glycogen reserve has been built up and combatting the jaundice and increasing the coagulation time by the administration of calcium chloride intravenously or by blood transfusions.

J. T. Mason, reporting two groups of 100 cases each, one treated surgically and one medically, showed that 10 per cent of the surgically treated and 6 per cent of the medically treated died. However, surgery was only used in the severe cases, and of the medically treated, one-third of them were operated upon after the medical treatment because the symptoms persisted; another one-third continued to have symptoms and should have been operated upon. The remaining third continued free from symptoms for from 1 to 6 months. Of those operated upon, 83 per cent were improved, 58.2 per cent were completely relieved, 13 per cent continued to have symptoms as before, and 4 per cent received no benefit.

Alvarez states that 75 per cent of the patients are cured by surgery; of the remaining 25 per cent, 10 per cent of the failures from the first operation are due to stones left in the common duct. The other failures are due to irreparable damage to the liver or pancreas from delayed operation and to mistaken diagnoses.

#### *Acute Cholecystitis*

The old discussion as to whether to do a cholecystostomy or a cholecystectomy has given way to the present argument as to when is the proper time to operate upon acute

cholecystitis. Some surgeons advocate immediate operation, as in appendicitis, claiming as the reason the frequency (14 per cent) and danger of perforation; others wait several weeks until the inflammation has subsided, while still others advocate waiting only long enough to get the patient in good condition, build up his glycogen reserve, usually 48 hours to 1 week. The latter seems to me to be the most logical and is the one I have followed.

Gallbladder surgery usually means doing one of the following operations: (1) cholecystostomy, which affords permanent relief in only about 45 per cent of the cases. Symptoms presenting in the other 55 per cent are due to the persistence of infection and inflammation in the wall of the gallbladder, to stones left behind, or to formation of new stones. This operation has been largely abandoned for cholecystectomy unless the patient's condition is such that removal of the gallbladder is too hazardous; (2) cholecystectomy, or removal, usually affords relief in about 80-86 per cent of the cases. The remaining patients are not relieved because a certain per cent have stones in the common duct, a certain per cent have extensive liver damage, which, because of the delay in operating, is permanent, and a certain per cent are due to mistakes in diagnosis; and (3) choledochostomy, or drainage of the common duct.

The mortality from the above operations, as given by Lahey, is 4 per cent for the first two operations and 13.3 per cent for removal of stones and drainage of the common duct.

We should discuss briefly cholecystogastrostomy; that is, suturing the gallbladder to the stomach, to relieve the intense jaundice due to pressure on the common duct from a tumor in the head of the pancreas. In the past most physicians have considered this a hopeless condition and advised these patients against having this operation done. But, is that advice sound? Although this operation will not cure the patient, it will relieve him of intense itching and other miserable symptoms due to the jaundice. The condition of the patient is so intolerable from the jaundice that Lord Moynihan said that the mortality from suicide in these patients is greater than

the mortality from the operation. The operation is so simple with the new Bettman modification of the Tate Mason technic that it seems a shame that every one suffering from this trouble could not be given this procedure. There have been patients reported living 5 years after this procedure.

As one learns chiefly by experience, I should like to report a series of cases of my own, collected and analyzed by my associate, Dr. Schley Gatewood. These consist of 81 gallbladder cases and 5 related cases. There were 41 cases of chronic cholecystitis without stones, and 40 cases with stones. There were 6 cases of acute cholecystitis with stones, and no cases of acute cholecystitis without stones.

	Symptoms				Phys. Findings		
	J	P	I	T	J	O	T
81 CASES OF GALLBLADDER DISEASE	6	32	27	5	7	6	31
41 Cases of Chronic Cholecystitis—without Stones	15%	79%	66%	12%	18%	15%	76%
34 Cases of Chronic Cholecystitis—with Stones	6	29	15	5	8	13	23
	18%	88%	45%	15%	24%	39%	70%
0 Cases of Acute Cholecystitis—without Stones							
6 Cases of Acute Cholecystitis—with Stones	6	1	6		2	2	5
	100%	17%	100%		33%	33%	83%

The above chart shows that patients with cholecystitis and stones complain more of jaundice, pain, right costal margin and epigastric tenderness, but that they have less food indigestion than do patients having cholecystitis without stones. Physical findings showed these same patients were more obese and jaundiced, but that they had less right costal margin and epigastric tenderness.

There were 83 white and 3 colored; 62 females and 24 males, and of these 36 per cent of the men and 53 per cent of the women had stones.

**Age Group.** The ages ranged from 20 to 79 years.

Age Groups	Number of Cases	Patients with Stones
20-29	5	1
30-39	26	13
40-49	18	8
50-59	17	8
60-69	13	8
70-79	1	1

As is shown by the chart, the youngest patient was 20 years of age, the oldest 79; the greater number about 40.

Twenty-four per cent of the patients gave a previous history of having had typhoid fever; 11 of these had stones.

Forty-four patients had been pregnant; 25 had stones.

The types of operation performed were: cholecystectomy 66; cholecystostomy 12; choledochostomy 6.

The types of anesthesia were: gas-ether 53; spinal 18; splanchnic 5; and combined 4.

The mortality was 3 deaths out of the 81, or 3.7 per cent. One patient was 64 years old and died on the eleventh day of pneumonia; another was 63, he was jaundiced and died on the fifth postoperative day; the other was a young woman in whom there did not seem to be any likelihood of postoperative trouble; the gallbladder was covered with adhesions, the wall was thickened and it was easily removed; no trouble was anticipated, but within about 12 hours after the operation the temperature began to rise and became extremely high, 106 and 107 degrees, rectal; and she died on the second

postoperative day. This case is one of those little understood liver deaths.

The related cases possibly should not be considered in this report, but since they were related I am reporting them. They increased the mortality to 6 out of the total 85 or to a mortality of 7 per cent. The first was an obstructed jaundice case, caused by what the pathologist said were cysts of the pancreas, but I thought they were malignant. The common duct was drained and he died on the twenty-second postoperative day. He should have had a cholecystogastrostomy. The second was a man who had cirrhosis of the liver with jaundice and ascites, and stones in the gallbladder. The stones were removed, a Talma operation was done, and he died on the fourth postoperative day; the third had obliterative cholangitis and died on the second postoperative day. The fourth was one with carcinoma of the gallbladder; his abdomen was opened and drained and he died a week later. The fifth was a patient who had seven stones removed from the common duct three months after a previous cholecystectomy for stones, during which operation two or three stones were milked out of the common duct. She recovered and has had no trouble since the second operation.

A follow-up of these patients shows that 8 still complain of trouble. Two of these had



stones at the time of the operation; one had gotten along fine for 6 years and then began to have trouble; the stomach was adhered to the liver so as to cause an obstruction and a gastro-enterostomy was necessary.

As most of the common duct stones and the badly damaged livers were in the aged and in those who gave a history of many years of trouble, it would appear that early operation would have prevented these conditions.

### Conclusions

Since it has been shown that operation relieves the vast majority of patients suffering from gallbladder disease; that is, 80 to 85 per cent, and since the failures are due: first, to stones left behind in the common duct; second, to irreparable damage having already taken place in the liver, pancreas, or other organs, and third, to mistaken diagnosis, the logical things to do are: first, to make correct diagnosis; second, be sure to remove all stones from the common duct at the first operation, and lastly, try to give these sufferers the benefit of operation before irreparable damage has been done to the liver, pancreas, etc.

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### OSTEOMAS OF PARANASAL SINUSES AND THE MASTOID PROCESS—REPORT OF CASES

BERT E. HEMPSTEAD, Rochester, Minn. (*Journal A. M. A.*, Oct. 1, 1938). points out that osteomas that arise in the paranasal sinuses are not common. Occasionally they are discovered in routine roentgenologic examination of the sinuses. They are not diagnosed clinically or even suspected of being present until either evidence of intracranial complications becomes manifest or external deformities appear. Most osteomas can be removed through the fronto-ethmoidal incision. If osteomas do not involve the dura or cribriform plate, removing them by the method of Cushing is illogical. Pyocele or mucocele of the sinuses can be handled best through the fronto-ethmoidal incision. Osteomas associated with intracranial complications are cared for best through the transfrontal approach. If osteomas are associated with intracranial complications and with definite infection of the sinuses, operation might be done in two stages with advantage.

### THE VALUE OF THE ASCHHEIM-ZONDEK TEST IN THE DIAGNOSIS OF CHORIONEPITHELIOMA\*

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The most important recent development in the diagnosis of hydatidiform mole and chorionepithelioma is the utilization of the Aschheim-Zondek test, or the Friedman modification of that test.

In 1928 Fels and Rossler, as quoted by Mazer and Edeikin<sup>1</sup> demonstrated that patients with moles and chorionepithelioma excrete in the urine a much larger quantity of the anterior-pituitary-like hormone than a normally pregnant woman, and that examination by the fractional method for the hormone excreted is an accurate guide in the diagnosis of these conditions. Further investigation revealed that the presence of increasing quantities of the hormone two weeks after termination of normal pregnancy, or eight weeks after removal of a molar pregnancy, is pathognomonic of chorionepithelioma; and a persistence of a positive test for the hormone after operation and removal of the growth is proof of metastasis.

The concentration of hormone in the urine of a patient with a mole is usually two or three times that of an individual with normal pregnancy, while it is about seven times more in chorionepithelioma. The test usually becomes negative within two to eight weeks after removal of a mole, according to Mazer and Edeikin. However, Aschheim<sup>2</sup> and others have reported cases with a positive test persisting 3½ to 6 months, but those patients continued to bleed from the uterus, and it finally developed that portions of the moles had been retained.

The presence or absence of an excessive amount of the hormone in the urine of a single specimen should not outweigh clinical judgment. It should be remembered that in normal pregnancies there is an error of 1 to 2 per cent and while a repeatedly positive reaction without any clinical symptoms was demonstrated in a case of chorionepithelioma by Leventhal and Saphir in 1935,<sup>3</sup> a single

\*Case report before the staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, March 10, 1938.

negative or positive report does not exclude or prove malignancy. The persistence of a positive reaction, even though it is slight, is far more suggestive than a single one with a high hormone content, for it must be remembered that even at times non-pregnant women may excrete an excessive amount of the anterior-pituitary-like hormone.

The tumor may consist of only a few cells or it may fill the pelvis. The lesion may be within the endometrial cavity, within the myometrium or project into the peritoneal cavity as a subserous mass. Clemmer and Hansman, in 1935,<sup>4</sup> reported two patients in whom the tumor was in the myometrium and inaccessible to the curet.

Chorionepithelioma has a decided tendency to metastasize by the blood stream and lesions in the lungs or vaginal walls are usually the first to appear. This is because of the marked tendency of the malignant cells to invade blood vessels. The retrograde vaginal metastases are attributed to anastomoses between the uterine vessels and those of the anterior vaginal wall. Unless there is gross evidence of extension into the parametrium the dissection at time of hysterectomy need not be as complete as that for carcinoma, and knowledge of pulmonary metastases may be a guide in deciding the operability of a patient and subsequent treatment.

#### *Symptoms*

Unfortunately subjective symptoms are often lacking until the appearance of the metastatic lesion in the lungs or vagina. There may be irregular bleeding following childbirth, abortion or mole and all uterine scrapings from such patients should be examined with this in mind. On examination the uterus is usually somewhat larger than normal and lutein cysts of the ovaries are nearly always present.

#### *Incidence*

In 1937 Schumann<sup>5</sup> reported 15 chorionepitheliomas out of 207,707 pregnancies, the study covering a five year period in Philadelphia. In 8 of those there were histories of moles. During the same period there were 78 moles in the hospitals of that city. The immediate mortality of the chorionepithelioma was 53 per cent and the salvage a little better than 33 per cent. Roughly, about 5 per cent of moles become malignant while approxi-

mately 50 per cent of chorionepitheliomas follow moles; they then follow abortion, term pregnancy and ectopic pregnancy in the order named.

#### *Treatment*

Treatment of chorionepithelioma is removal of the uterus and, usually, the adnexa if discovered when the tumor is operable. This may be preceded or followed by x-ray or radium treatment, as the tumor is very radiosensitive.

Because most chorionepitheliomas follow moles, Schumann in 1922,<sup>6</sup> and again in 1933,<sup>7</sup> stated that there should be a routine hysterectomy following the diagnosis of all moles. However, many writers say his conclusion and method of attack is too radical, and that careful observation of the patient over a period of a year or longer with frequent quantitative Aschheim-Zondek tests is satisfactory conservative treatment.

#### *Case Report*

Mrs. W. B., wife of a physician, aged 45, was first seen by Dr. M. T. Benson, Sr., on Aug. 3, 1937, complaining of excessive nausea and vomiting. She was admitted to the hospital immediately. History revealed two abortions at 2nd or 3rd months several years ago. No full-term pregnancies. Menstrual history was uneventful except that her period in June 1937 was scanty and she failed to menstruate in July at the expected time, but had begun to bleed about seven days before she was seen on Aug. 3, which lasted 4-5 days. No abdominal pain or blood clots.

On physical examination the points of interest were confined to the pelvis. There was a small cervical polyp present and the uterus was slightly larger and softer than normal. Urinalysis normal. Blood counts showed a moderate secondary anemia. The Friedman test was positive. The nausea and vomiting subsided following frequent feedings of a diet high in carbohydrate, and the administration of sedatives the patient was discharged, improved, Aug. 14.

On Aug. 28 she was re-admitted to the hospital, and the toxemia was much worse. She had continued to have a brownish vaginal discharge, but had passed no clots or tissue. It was decided to empty the uterus because of the toxemia, the patient's age, and the fact that she continued to have a bloody discharge. On Aug. 31 the polyp was excised and considerable tissue removed, but no fetal parts were noted. This tissue proved to be a hydatidiform mole. The patient continued to be nauseated and had abdominal cramps from time to time so it was thought all the mole had not been removed. On Sept. 9 she passed spontaneously a large section of mole measuring about 10x12 cm. Dr. Francis Parker, pathologist, was unable to find evidence of malignancy. The next day the uterus was again carefully curetted and a small amount of mole tissue was removed, and the uterus packed with sterile

gauze for 12 hours. Pathologic examination revealed no malignancy of this tissue. The patient improved and there was no further vomiting. She was dismissed Sept. 16. Friedman test on that day was negative in the 1-50 dilution but was positive in the concentrated dilutions.

Hysterectomy had been contemplated, but it was thought advisable to watch the patient for a while because of her anemia and rather poor general condition.

On Oct. 3 another test was reported positive in both concentrated and dilute solutions; on Oct. 16 it was again positive in both concentrated and dilute tests. The patient was advised to return to the hospital for operation, which she did Oct. 30.

She had improved considerably both in weight and strength. There had been no vaginal bleeding until the day of admission to hospital when she began to flow profusely, passing large blood clots.

On the day she left the hospital in September she contracted an upper respiratory infection which developed into a fibrinous pleurisy at home. Examination on Oct. 30 revealed a pleural friction rub at the bases of both lungs, more marked on the left. The cervix was smooth and firm, no erosion; slight bleeding from the os. Uterus was anterior, freely movable and about normal in size. Both ovaries seemed to be enlarged and cystic; no tenderness. X-ray of chest showed evidence of a definite pleurisy at the right base and a nodule in the right lung structure which was suspected to be a metastatic lesion, but since this was questionable it was thought advisable to operate. On Nov. 1, under spinal anesthesia, a complete hysterectomy was done. There was a suspicious mass about 2½ cm. in diameter in the fundus, so the adnexa of both sides were also removed. There was no evidence of any extension of the malignancy into the broad ligaments.

Postoperative course was uneventful, except that on the second day she developed an acute dilatation of the stomach which was relieved by a Levin tube to the stomach, and 3 per cent saline intravenously.

Pathologic examination of the tissue removed revealed a chorionepithelioma and corpus luteum cysts of the ovaries. No evidence of extension of the malignancy into the adnexa.

On Jan. 21, 1938, patient returned to office, with a gain in weight of 15 pounds. X-ray showed evidence of the old pleurisy but nothing suggestive of metastases. The Friedman test was negative. The abdominal and vaginal wounds had healed well. No metastases to the vagina were demonstrable.

### Summary

1. Patients with moles and chorionepithelioma excrete much more of the anterior-pituitary-like hormone than do women with normal pregnancy.

2. Quantitative Aschheim - Zondek or Friedman tests are of value in the diagnosis of these conditions.

3. A case report of a mole followed by chorionepithelioma is presented in which the

quantitative Friedman test was of value in the diagnosis.

4. Treatment is surgical removal of the uterus, with or without the removal of adnexa. Radiation before or after operation is of value.

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## ENCROACHMENTS UPON PHYSICIANS' RIGHTS

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*Atlanta*

There is an old feeling, still ingrained in the make-up of a physician, that he should devote his thoughts to the scientific phases of his work and let the economic phases take care of themselves. Perhaps this is the reason physicians are reputedly poor business men. But now the economic phases have thrust themselves on us and we have to talk about them, however distasteful it may be.

We physicians have nothing to sell but our services. We have spent many years and many thousands of dollars to make those services worth something to the public—and we are entitled to sell them in a fair market, without improper restrictions or unfair competition.

Therefore we are all interested in what we call socialized medicine, which, for our purposes, we will define as any system whereby either the professional or economic aspects of practice are controlled by laymen. The two go hand in hand, for economic control will lead to professional control. It is axiomatic that the man who pays the fiddler eventually will call the tune.

For most of you, socialized medicine is something to talk about at medical meetings. For us in the laboratory branches it has arrived in one form or another. What I shall say will be primarily about radiology, but it applies also to other laboratory fields, and it

\*Read before the Fulton County Medical Society, Atlanta, Nov. 3, 1938.



is only a matter of time until it will concern every one of you.

Realizing the dangers surrounding radiology from an economic standpoint, the four national societies have organized the Inter-society Committee for Radiology, whose sole purpose is to deal with matters affecting the economics of radiologic practice. This committee has asked and obtained the support of the Georgia Radiological Society, which at its last meeting appointed a committee to deal with the subject, for which I speak tonight.

The Georgia committee decided to limit its field to four topics. The first, dealing with the state cancer program in Georgia, has been adjusted to our entire satisfaction. We wish to express our appreciation of the very fair-minded attitude taken on this subject by Dr. T. F. Abercrombie and Dr. J. L. Campbell particularly. The second, dealing with radiologic standards in hospitals, is being handled exclusively by one member of the committee and our findings on this subject will be published later.

Our third problem, the lay-radiologist, may be stated as a formula. 1. Radiology is the practice of medicine; 2. Medicine legally may be practiced only by those physicians holding a license. 3. But laymen practice radiology. It does not come out even, or make sense. Why? Because certain members of the medical profession support and defend the lay-radiologist. Why? Because the lay-radiologist can and does offer inducements which medical men can not ethically offer. You may ask why we do not hail the lay-radiologist to court. The reason is that if we do, he can and will employ a cheap doctor to go in partnership with him and sign his reports. As long as there are doctors who will do this, we can accomplish nothing.

Suppose we set up a hypothetical situation equally as logical. I believe any one of you will agree that any bright young man with a reasonable amount of training could learn to take out tonsils, appendices, gallbladders and uteri in an acceptable manner from a standpoint of surgical technic. Well then, why not train up a lot of laymen as surgical technicians? Obviously, you would say—"Such a man would have no medical background. He might know how to take out an appendix but he would not know when."

Now that is just exactly the objection we offer to the lay-radiologist. He may be an excellent technician, he may have picked up a working knowledge of x-ray diagnosis, but he certainly cannot have acquired a medical background.

But suppose we carry our surgical technician idea a bit farther. Say we have these trained surgical technicians. The internist might say—"Well this is great. I can make a diagnosis. I know when to operate. These fellows know how to operate. We will work together. I will send my patient to the surgical technician. He will operate for a few dollars a case. Why should I let the surgeon milk the cream from my patients?" Why, my friends, if any such system as this were seriously proposed, surgeons would be wringing their hands from Maine to California. And yet some surgeons support the same set-up in radiology.

Our final topic is the practice of radiology, and consequently, the practice of medicine, by corporations, usually a hospital or a clinic. This naturally is bound up in the general question of the relationship between hospitals and physicians. As a general rule these relations have been unsatisfactory, so much so that all experienced radiologists shy off the proposition of full-time work in hospitals. Why? Because, hospitals, controlled by laymen, have followed a uniform pattern in dealing with radiologists. The hospital will take a young radiologist, say on a commission basis, to build up the department and grow with the institution. He does these things by hard work. He reaches a point where he is earning a good income. Then the kill. Some lawyer or banker on the board looks over the finance sheet. "My God," he says, "we are paying this lousy x-ray man eight thousand dollars a year. That's too much for a doctor to make. We'll mow him down." And they do, replacing him with a cheaper man, and putting the profits in the hospital coffers. This has occurred so many times that we radiologists know it will always occur—except in exceptional institutions.

I had thought until recently that the relations between physicians and hospitals were not a matter of much concern in the profession. But I was surprised to find otherwise. Recently the President of the State Medical

Association published an article in the Journal in which he enquired, "Will the hospitals run the physicians or will the physicians run the hospitals?" You should read it.

Hospitals came into existence, usually through the efforts of physicians, to furnish a definite service to patients, such as housing, board, nursing and operating facilities. They were not created to practice medicine. Naturally certain things must be done in the hospital by physicians for the patient, for example anesthesia, x-ray examinations, x-ray treatments and laboratory examinations. *But these procedures remain the practice of medicine.*

Gradually the hospital, generally pleading financial necessity, has edged the physician out in these fields, first in anesthesia, then in the other fields to a lesser extent. We now witness the spectacle of a hospital earning \$25,000 a year from its x-ray department, paying its radiologist a small percentage of this amount, and pocketing the rest, although it is the knowledge and skill of the radiologist which it largely is selling to the public.

We have the cancer clinic, employing a radiologist, often at a modest salary, and selling his services to the public at a profit, soliciting patronage from the profession, and caring little whether or not the private radiologists' children go barefooted.

The shoe is pinching us now. It is only a matter of time until it will pinch you. If a hospital can employ a radiologist—and take in radiology at a profit—there is no earthly reason why it cannot employ a surgeon or a gynecologist or a laryngologist and do the same thing in those fields.

We may well see this sort of thing. A hospital, employing physicians on full-time, may advertise as follows: "Doctor, send us your surgical patient. For \$100 we will hospitalize your patient and our full-time surgeon will take out his appendix. For \$150 we will snatch out his gallbladder. For \$200 we will hospitalize your patient and our full-time gynecologist will take care of her pelvis. Send us your obstetric patient; for \$75.00 we will take care of her and send her back to you in good shape, baby and all. Tonsils only \$24.98 during our August Sale."

If this were even seriously proposed, the

conditions in the Mississippi Valley. These things are unfair. They are unethical. By the vast preponderance of court decisions they are illegal. They have been condemned by the American Medical Association. The hour has struck when those of us who are practicing radiology are forced to do something in defense of our right to earn an honest living from our efforts.

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### ODD ALLERGIC CASES\*

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M. A. EHRLICH, M.D.

Bainbridge

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Specialists in the field of allergy are no longer satisfied to test their patients with a limited number of extracts. They prefer to use every available extract before coming to a definite conclusion as to the cause of the patient's symptoms. But at times even such a complete series of tests fail to reveal the cause of trouble.

With more and better extracts such failures are becoming less frequent, and some of them have been due only to the fact that the patients were not tested with the proper extracts. Testing is only one of many, but usually the fastest, methods we can use to determine the cause of allergic conditions.

From time to time an allergist comes across unusual cases which call for a particularly minute analysis and a certain ingenuity on the part of the physician to find the correct solution to the problem. A few such odd cases are presented in the following pages:

*Case 1.* White male, aged 45, had been suffering with sneezing spells and a clear watery nasal discharge for 16 years. This discharge was so profuse as to necessitate the use of several handkerchiefs at a time. There seemed to have been no relation of attacks to weather or season. The patient could not recall whether he was better when he was away from his home town.

*Allergic History:* One brother had headaches. Another brother had urticaria. One nephew had headaches and another nephew had hay fever. The patient had had urticaria. His eosinophile blood count was 4 per cent.

I was unable to obtain a positive reaction to any extract I had. I made special extracts of his pillow, mattress, and room dust. The last was slightly positive and the others were negative. I made no progress in solving this case until I found that chimney swifts were nesting in the chimney of his home. I was fortunate in capturing a few and making an extract of

\*Read before the Chattahoochee Valley Medical Association.

their feathers. This extract gave a slightly positive reaction on his skin. I then tried to think of a possible connection between the room dust and the bird feathers. It occurred to me that an extract of the swifts' dung might throw some light upon the situation, as this dried material had gotten into the room. I made an extract of the dung, and tested the patient with it. The reaction was strongly positive.<sup>1</sup>

I kept the patient under treatment with this extract for 16 months, although his trouble had entirely disappeared before he had been under treatment 8 months. The chimney had been covered with wire to prevent the entrance of the birds, but no attempt was made to close the fireplace. The patient remained entirely free of any trouble until his death 3½ years later from an unrelated cause.

This case illustrates several features interesting from the allergic standpoint.

1. Swift dung as the cause of allergic conditions had never been reported before.

2. A certain amount of detective work is needed to solve some allergic cases.

3. The permanence of results obtained by allergic treatments is exemplified.

4. Failure to obtain reactions by testing does not mean that the patient is not allergic, but rather that the proper extract has not been used.

*Case 2.* White female, aged 16 months, began having unexplained fever at the age of 7 months. She had been seen and treated by several other physicians before coming to me, and her case had been successively diagnosed as typhoid fever, pyelitis, undulant fever, cystitis, malaria, tonsillitis, Brill's fever, and so on. Nothing was found to account for this fever or the various "diagnoses." The eosinophile blood count was 6 per cent.

*Allergic History:* One sister had had urticaria, another had asthma, urticaria and headaches. Maternal aunt had urticaria, maternal grandfather had hay fever.

These facts led me to test her allergically, and a positive reaction was obtained to wheat. Upon elimination of wheat from the patient's diet, the fever disappeared, and returned whenever her sisters gave her crackers, bread, or other food containing wheat.<sup>1</sup>

This case illustrates the following points:

1. Some obscure fevers may be of allergic origin.

2. Since the condition of the patient started with the beginning of solid feeding, some attempt should have been made to connect it with food from an allergic standpoint.

*Case 3.* White male, aged 1 month, 23 days. Breast feeding. Bowels had been upset for two weeks and the patient was having from 20 to 30 stools daily in spite of treatment. The movements were green, bloody, and contained mucus. There was much straining with each stool. In spite of the severity of the diarrhea, the baby was in very good physical condition. The rectum was relaxed and prolapsed.

*Allergic History:* The patient had eczema. A maternal aunt had contact dermatitis due to face cream. A paternal uncle had allergic rhinitis. Another paternal uncle had headaches, and his son had headaches

due to dog epithelium. The child of a paternal aunt had hay fever due to ragweed and cocklebur.

The baby was tested, and positive reactions were obtained to both sweet and Irish potato. Upon the elimination of potatoes from the mother's diet, the baby's diarrhea stopped in 4 days without change of medication. The eczema improved and later cleared up entirely.

I purposely directed that the mother be fed small pieces of potato at different times at her noon meal (12:00 to 12:30 P. M.), and the baby was nursed between 2:00 and 2:30 P. M. Each time after such experiment, the baby would have four to six bowel movements before 5:00 P. M. The next day, with elimination of the potatoes from the mother's diet, the baby's diarrhea would be checked. Whenever sweet potato was given to the mother, the baby's bowels would become upset and his eczema would return, but when Irish potatoes only were eaten by the mother, the diarrhea of the baby ensued, but there was no eczema.

Later, when potatoes were given to the child himself, the same phenomena occurred. Potatoes were kept away from the child for a number of months, and now that the child is over three years old, he can eat potatoes without trouble.

This case illustrates the following:

1. A nursing child may be affected by some food taken by the mother, although the food may cause no symptoms in the mother herself.

2. Food elements ingested by the mother pass with extreme rapidity into the breast milk.

3. Infant sensitivity to specific food may be outgrown if the food is avoided and not permitted to establish physiologic changes of sensitivity.<sup>2</sup>

*Case 4.* White female, aged 30, had been suffering with migraine all her life.

*Allergic History:* Father had eczema. Paternal aunt had headaches. Mother had headaches. Maternal aunt and two uncles had headaches. Maternal grandfather had headaches. One sister had headaches and hay fever.

The patient's eosinophile blood count was 7 per cent. I found her allergic to chicory. Chicory is used as an adulterant and flavoring of coffee. When coffee containing chicory was eliminated from the patient's diet she no longer had headaches. Coffee without chicory caused no symptoms. This necessitated buying coffee grains and having them ground, and making it a rule never to drink coffee while away from home.

Other cases of sensitivity to chicory can be found in medical literature, but it is a rare cause of trouble, and produces asthma more often than migraine.

*Case 5.* White male, aged 19, had had indigestion 3 years and severe abdominal cramps for several months, so severe as to incapacitate him from farm work.

*Allergic History:* The patient had had severe urticaria following a dose of anti-streptococcus serum 13 months previously. Two sisters had had urticaria. Father had asthma. Mother had had hay fever and migraine. A maternal great-uncle had asthma. The patient's eosinophile blood count was 1 per cent.



In view of the family and personal history I attempted to attack his problem from an allergic basis. Among the positive reactions obtained to skin tests were reactions to cigarette and cigar tobacco. The patient was instructed to stop smoking. He returned after three days with the report that he had had only three attacks of abdominal cramps, and that each time the attack had occurred while smoking cigarettes. One attack came on while he was plowing and he had to lie down in the field until the pain had become less severe. I could not induce him to stop smoking until he learned by experience over several weeks that cramps were produced each time he smoked cigarettes. He has now stopped smoking entirely, and has remained absolutely free of abdominal cramps and indigestion.

This case illustrates the following:

1. Both indigestion and abdominal cramps may be caused by allergic reactions.
2. Attacks may be caused by inhalants, not just food.

*Case 6.* White female, aged 35, had suffered with indigestion for years. For the last three months she had had a heavy feeling in the upper left quadrant of the abdomen half an hour after meals, with shortness of breath and nervousness. She had been x-rayed several times, had been given test meals, etc. Nothing abnormal was found, except a displacement of the stomach downwards. She had been advised to obtain relief by operation, with a ventral fixation.

*Allergic History:* One child, one sister and a maternal uncle had had urticaria. Mother and sister had migraine. The eosinophile blood count was 1 per cent.

Although skin tests showed reactions to several foods, no definite improvement was observed in her condition by eliminating these foods. A food chart was then kept, and furnished the information that coffee was the cause of the patient's condition. Upon eliminating coffee from the diet she remained well until she was killed in an automobile accident about a year later.

This case illustrates the following:

1. Proposed operation would not have given good results had it been performed.
2. Skin tests alone do not always solve allergic problems, and other means must sometimes be used.

*Case 7.* White male, aged 54, had had asthma for 15 to 18 years; ringworm for 5 years; hypertension for 8 years.

*Allergic History:* Four brothers had urticaria. Two children had urticaria.

The eosinophile blood count was 4 per cent. Blood pressure was 190/110. Urinalysis showed hyaline casts and a large amount of sugar. Skin tests showed reactions to various food: to goose feathers, sheep wool, skunk hair, trichophyton and oidiomycin (Lederle). When an extract of *ascaris lumbricoides* (roundworm) that I use to test for intestinal parasites was applied, the reaction was 50 mm. The patient was kept in my office for 45 minutes, but a severe attack of asthma occurred about 5 minutes after he left the office. Not being satisfied that *ascaris* could have caused this severe attack, I reapplied it several days later. This time the reaction was 40 mm. in 10 minutes, so I gave

adrenalin at the site of the test, and no asthma followed.

Passive transfer tests made with goose feathers, sheep wool, and skunk hair were positive, while the controls were negative. The passive transfer test with *ascaris* was 12x15 mm., with pseudopods and an areola of 40x50 mm.

Treatment was instituted as follows:

Sugars and starches reduced to a minimum for the diabetes; desensitization with (1) goose feathers, sheep wool, and skunk hair, (2) trichophyton and oidiomycin, and (3) *ascaris*.

His blood pressure came down to 160/110 in three days, and has remained between 165 and 155 since. His diabetic findings disappeared, and have not returned, although all the positive-reacting foods have been returned to the diet and he is on a very liberal sugar and starch diet.

I draw no conclusions about the relief of the nephritis nor do I believe that the diabetes had any relation to allergy. Liston<sup>3</sup> and others report hypertension due to allergy, but I am not sure that the hypertension of this patient had an allergic basis. It is true that the blood pressure came down after the elimination of certain foods, but when these foods were returned to the diet, the blood pressure remained down.

*Case 8.* White male, aged 53, for several months had been suffering as follows: When he woke up in the morning, his eyes would burn, water, turn red; he had photophobia and his lids would be stuck together. His eyes could be opened with saline, and would become better until the sunlight would begin to fade, and then he would become almost blind. His vision was so bad that it was impossible for him to carry on his trade of gunsmith and locksmith. He was worse at home, and best in my office and while at the Gulf of Mexico.

He knew of no allergy in his family.

Tests showed reactions to chicken feathers. Elimination of his pillows was immediately followed by improvement and a return of his vision. Several weeks later, while on a visit, he slept in another bed, and woke up with his eyes stuck together and a great impairment of vision. Placing his hands on the pillow, he found that it contained feathers. Later, while on a visit at the Gulf, he demonstrated his condition to relatives by sleeping on a feather pillow. He woke up with his eyes stuck together, red, watery, and with impaired vision. He has had no treatment since, and has had little trouble except some burning and redness of the eyes when he works around chicken feathers.

This case illustrates that an impairment of vision may be due to an allergic cause.

*Case 9.* White female, aged 23, had had frequent colds for 4 years, associated with much sneezing in the early hours of the morning. The colds began with redness and watering of the eyes, and sneezing, sometimes associated with rattling in the chest.

Skin tests showed reactions to goat and sheep epithelia and to several foods; to trichophyton 1:30, with a reaction of 70x120 mm., and to oidiomycin 1:100 (Lederle) with a reaction of 50x65 mm. Under treatment with the fungus extracts she has obtained almost perfect relief.

This case illustrates the following:

1. Frequency of colds may have an allergic basis.
2. The cause of trouble in this patient was the same fungi which causes ringworm and "athlete's foot."

Case 10. White male, aged 10, had had asthma since he was 2 years old.

*Allergic History:* Sister had sneezing spells. Mother had hay fever.

The eosinophile blood count was 6 per cent. Skin tests showed positive reactions to house dust and to several foods, one of which was kiana cane. The patient obtained much improvement by treatment with dust extract. Later, however, by watching his diet, he found that attacks of asthma followed his eating kiana cane or kiana syrup. After elimination of this article from his diet, his improvement became more rapid.

This case illustrates the following:

1. There is a difference in the sensitizing properties of kiana, sugar cane, and P.O.J.
2. Asthma may be precipitated by kiana, though none is reported as caused by other canes.

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2. Ehrlich, M. A. A New Phase of Intestinal Allergy. *J. Med. Assn. Ga.* 26:5 (Jan.) 1937.
3. Liston, O.: Hypertension Caused by Food Allergy. *J. Mo. State Med. Assn.* (June) 1937.

#### MEMORIAL EXERCISES\*

Notice of the passing of sixty-four physicians in Georgia was published in *The Journal* in 1937-38. Only two were under forty years of age; nine were under fifty; sixteen were under sixty. Forty-eight were past sixty years of age; and nineteen (more, by three, than had died under sixty) survived the proverbial three score years and ten.

As your Committee on Necrology of the recent years, through its loved chairman, made frequent and fitting use of Bible-lore in beautiful addresses he gave in honoring the memory of the deceased fellow members of this Association, so we are not abashed at following the good example. In the parable, wherein the vineyard master went out early in the morning to hire laborers and agreed with them for a penny a day, he hired others, about the third hour, and, still others at noon; he offered to pay them for their work, that which was right. About an hour by sun, he saw others standing about, idle, and asked why they were not at work, and was told that no one would give them work. Even so late in the day, he sent them in, also, to work with the rest, promising to do the right thing by them. At sundown he told the foreman to call off the workmen and pay them, be-

ginning with the last, and on to the first. And, lo! When all were paid, they who had worked the one hour had each a penny, even as they who had borne the heat and burden of the day and had worked the full twelve hours.

Who shall say that they, who at twenty-eight and at thirty, were called to their accounting, after so short a service, may not have met an equal rich reward, with those who wrought through the arduous day of their three score years and ten, or even as they who went the four score span of life, and nobly earned the penny they were promised, at the hand of the Great Master of the field of our endeavor, on earth. For His measure of merit is not by man's standards.

When day is done, the bright evening star lights the darkening Western sky. It grows brighter as it meets the hastening horizon. Then it is quickly lost to our ken. But its luster, lost to us, lightens a sphere beyond.

J. Morton Smith, Jr., of Cochran, Georgia, entered the field in the late hours of his life's short day. Soon he was called to his accounting. In October of last year, at twenty-eight years of age, his spirit passed the bounds of this earth's day. In February of this year, George Washington Sherrer, of Rayle, Wilkes County, Georgia, who had served in the community in which he was born, as a country doctor, rounded out sixty-two years of work, and died at ninety-one. Now these two men deserved the special notice they are given, not alone because the life of one was longer and the day's life of the other was shorter than the years of those who have died during the now ending twelve months, not because, as did those others who have passed, and whose passing we now commemorate, they had done well the work assigned to them as doctor and as man. For each fellow physician whose name we shall read had earned by closing day, in his school of life, a sure place on the honor roll. This good man did not have to await the ending of his long life for all of his reward; nor did the others who lived past the meridian of their day of life. The joy of giving selfless service, which now is yours, our fellow living members and yet can be, but which was so soon denied to them whose work was shortly ended, was theirs and his.

\*Memorial exercises at the annual session of the Medical Association of Georgia, Augusta, April 28, 1938.

Since our last meeting the grim and relentless reaper has exacted heavy toll. In Georgia, many eminent in the practice of medicine have died, men whose names were known in homes throughout the State, whose ability and achievements in medicine were acknowledged in medical circles far beyond the borders of the State. Futilely, we yearn for counsel the silent tongue no more can give; for help the skilled and willing hand was wont to render—but, forever now, is still. Also some have died whose names and personalities were less well known, without the field of their life's work, but whose passing brought deep sorrow into homes, where these had come, as physician and as friend; and into hearts, where genuine interest and sympathy, and where singleness of purpose to help, had made for them a place. The passing of many such as these, in a day when young men, mature in the long years of pregraduate training in medical school and hospital; and in post-graduate hospital study, turn to urban sites, and not to rural fields, for choosing a location, leaves, not alone the aching sense of loss in heart and home, but in prospect, no successor family friend and no community physician.

A biographic note of each departed brother, whose name we now shall read, may be found in the issues of *The Journal*. We would give the fitting word of eulogy to every one of them if we could, but time is not allotted for the all too sadly lengthened list which follows:

Adams, Robert P., Hapeville, March 14, 1938, aged 60.  
 Atherton, Henry Grady, September 4, 1937, aged 47.  
 Avary, Archer, Atlanta, September 12, 1937, aged 90.  
 Barber, Walter Edgar, Atlanta, May 24, 1937, aged 52.  
 Baxley, William Henry, Hephzibah, April 22, 1938, aged 74.  
 Calhoun, Abner Wellborn, Atlanta, November 3, 1937, aged 40.  
 Derry, Henry Prestiss, Macon, August 30, 1937, aged 74.  
 Dexter, Charles Amory, Columbus, August 20, 1937, aged 60.  
 Dinsmore, Virgil Francis, Tifton, August 22, 1937, aged 62.  
 Donaldson, Henry Rutledge, Atlanta, December 25, 1937, aged 59.  
 Dorsey, Rufus Thomas, Atlanta, November 9, 1937, aged 64.  
 Downey, James Henry, Gainesville, August 28, 1937, aged 73.  
 Dykes, James Robert, Marshallville, February 20, 1938, aged 65.

Ehrlich, Sigo, Bainbridge, August 22, 1937, aged 49.  
 Eve, Hinton James, Augusta, April 27, 1937, aged 59.  
 Ford, Elzie David, Ray City, December 25, 1937, aged 62.  
 Gaines, Lewis McFarland, Atlanta, May 24, 1937, aged 59.  
 Garrard, John Angus, Robetta, March 15, 1938, aged 59.  
 Gibson, Cicero, Thomson, May 30, 1937, aged 71.  
 Goss, Nathaniel C., Ellijay, April 29, 1937, aged 75.  
 Hardin, Lewis Sage, Atlanta, November 12, 1937, aged 64.  
 Jones, James W., Thrift, May 18, 1937, aged 71.  
 Lacewell, John F., Dalton, August 19, 1937, aged 80.  
 Lattimore, James Ralston, Savannah, April 20, 1938, aged 64.  
 Lewis, Forrest Lee, Camilla, December 12, 1937, aged 69.  
 Mahaney, John Daniel, Columbus, November 19, 1937, aged 49.  
 Malone, Stephen Benjamin, Sandersville, June 25, 1937, aged 59.  
 McCoy, Homer Seal, Sylvester, December 31, 1937, aged 55.  
 McNeill, Robert John, Tignall, August 17, 1937, aged 63.  
 Mims, Samuel W., Sylvania, July 15, 1937, aged 83.  
 Moye, Otis Burgess, Soperton, January 20, 1938, aged 62.  
 Pu:se, Marshall Ashby, St. Simons Island, January 8, 1938, aged 72.  
 Rhodes, John Augustus, Crawfordville, April 9, 1938, aged 74.  
 Rogers, Frank Willingham, Ashburn, July 29, 1937, aged 49.  
 Roy, Dunbar, Atlanta, July 5, 1937, aged 71.  
 Sale, Higgerson Matherson, Sharon, February 1, 1938, aged 67.  
 Shaw, William James, Rome, June 21, 1937, aged 69.  
 Sherrer, George Washington, Rayle, February 26, 1938, aged 91.  
 Smith, Jefferson Gillum, McDonough, January 5, 1938, aged 61.  
 Smith, James Miller, Valdosta, January 8, 1938, aged 62.  
 Smith, James Milton, Jr., Cochran, October 1, 1937, aged 28.  
 Sommerfield, Julius Edward, Atlanta, December 14, 1937, aged 72.  
 Statham, O. W., Leesburg, May 19, 1937, aged 76.  
 Steele, William Henry, Griffin, June 17, 1937, aged 67.  
 Welch, Leonard E., Albany, October 3, 1937, aged 71.  
 Wilson, Samuel, Yatesville, September 28, 1937, aged 71.  
 Wimberly, William, Fort Gaines, March 1, 1938, aged 76.  
 Wright, Jesse Edgar, Macon, March 21, 1938, aged 65.  
 Yawn, Beverly Wood, Eastman, May 4, 1937, aged 51.

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Chairman, Committee on Necrology.



## THE PRESIDENT'S PAGE

## INDICTMENTS

The Special Federal Grand Jury, which has been conducting an investigation in Washington, D. C., returned indictments Dec. 20. *The Journal of the American Medical Association* for Dec. 24 said:

These indictments charged violation of the Anti-Trust Laws against the American Medical Association, the Medical Society of the District of Columbia, the Harris County (Texas) Medical Society, the Washington (D. C.) Academy of Surgery, and twenty-one individuals. The specific test of applicability of the anti-trust statutes to the medical profession was based on the District of Columbia cooperative, known as Group Health Association, Inc. The indictment charged the defendants with conspiring to "hinder and obstruct Group Health Association, Inc., in obtaining access to hospital facilities for its members." The indictment was signed by Thurman Arnold, Assistant Attorney General of the United States, David A. Pine, United States Attorney for the District of Columbia, and John Henry Lewin, Allan Hart, Douglas B. Maggs, and Grant W. Kelleher, special assistants to the Attorney General. According to United Press reports, the indictment charged the defendants with "having combined and conspired together for the purpose of restraining trade in the District of Columbia," that is to say: (1) for the purpose of restraining Group Health Association, Inc., in its business of arranging for the provision of medical care and hospitalization to its members and their dependents on a risk-sharing prepayment basis, (2) for the purpose of restraining the members of Group Health Association, Inc., in Washington, in obtaining by cooperative efforts, adequate medical care for themselves and their dependents from doctors engaged in group medical practice on a risk-sharing prepayment basis, (3) for the purpose of restraining the doctors serving on the medical staff of said Group Health Association, Inc., in the pursuit of their calling, (4) for the purpose of restraining doctors (not on the medical staff of Group Health Association, Inc.) practicing in the District of Columbia, including the doctors so practicing who are made defendants herein, in the pursuit of their callings, (5) for the purpose of restraining the Washington hospitals in the business of operating such hospitals.

"In so doing, defendants have then and there engaged in an unlawful combination and conspiracy in restraint of trade in and of the District of Columbia, in violation of Section III of the Act of Congress on June 2, 1890, known as the Sherman Anti-Trust Act.

"Plans, understandings and agreements to accomplish the unlawful business herein above described were proposed, discussed and adopted at such meetings" (the indictment apparently refers here to meetings of the Medical Society of the District of Columbia, at which the Group Health Association, Inc., was discussed).

In announcing the decision of the government to press for criminal indictments, Mr. Arnold is reported to have said that such procedures seemed the only method to resolve the issues raised in the situation. The individuals indicted include Dr. Olin West, secretary



and general manager of the American Medical Association, Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, Dr. Roscoe G. Leland, director of the Bureau of Medical Economics, Dr. William C. Woodward, director of the Bureau of Legal Medicine and Legislation, and Dr. William D. Cutter, secretary of the Council on Medical Education and Hospitals, all from the headquarters of the Association in Chicago. The following remaining individuals named in the indictments are all from the District of Columbia: Drs. Arthur C. Christie, Coursen B. Conklin, James Bayard Gregg Custis, Thomas A. Groover, Robert A. Hooe, Leon A. Martel, Thomas E. Mattingly, Francis X. McGovern, Thomas E. Neill, Edward H. Reede, William M. Sprigg, William J. Stanton, John O. Warfield, Jr., Prentiss Willson, Wallace M. Yater and Joseph R. Young.

Our State Legislature is now in session. We as medical men owe to the public a definite obligation. We must continue our efforts to enact into law those measures which will help all the people. At this session of the General Assembly our Committee on Public Policy and Legislation will endeavor to have passed the Basic Science Bill; an enabling bill to carry out the provisions of the constitutional amendment which will permit counties to levy a tax for the medical and hospital care of their indigent sick; and various minor bills. Please talk to your senators and representatives and ask them to support our bills.

County medical societies should have special meetings devoted to discussion of our problems. Each society would do well to show its interest in organized medicine by having such a meeting, making a strong effort to have 100 per cent attendance.

American Medicine is on trial. Let us stand together and fight for those principles which have stood the test of time.

GRADY N. COKER, M.D.

# THE JOURNAL

OF THE  
MEDICAL ASSOCIATION OF GEORGIA  
Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JANUARY, 1939

## ORGANIZED MEDICINE IS ON TRIAL

The code of ethics of the medical profession has survived the test of time, having been promulgated before the time of Christ. It is nothing more or less than the "Golden Rule": fair dealing with the people whom we serve, and the same sort of conduct between members of our profession.

The medical profession of the entire world, and there is no profession that equals ours, has been builded around and woven into the principles set forth in our code of ethics. Its inspirational message has steadied all of us and has meant a finer service to our patients, and to society as a whole.

Organized medicine was an effort of far-seeing physicians to further these principles. The first medical society in the United States was started in Boston in 1735. Twenty years later "A Faculty of Physic" was organized in Charleston. The Georgia Medical Society was founded in Savannah in 1804. The American Medical Association was organized in New York City in 1846, and there followed the organization of various state medical associations. THE MEDICAL ASSOCIATION OF GEORGIA was organized in Macon in 1849.

Although the American Medical Association and all state medical associations were organized for "the improvement of medical education and the betterment of the public health," and have fostered such activities throughout all these years, the American Medical Association and certain affiliated organizations have been indicted by the government they have served so well. American Medicine is, therefore, on trial before the courts of our country. Details of the indictments will be found in *The Journal of the American Medical Association* for Dec. 31, and on the President's Page of this *Journal*.

What will be the outcome of the trial? No one can predict what will happen in courts of law, but there is one thing certain:

the medical profession of this country has a long and honorable history. Its members of today are no different from their forbears who helped found the Colonies, except in possessing more knowledge of disease. Organized medical societies, component parts of the American Medical Association, have been the channels through which this newer knowledge flowed to every physician of this great country of ours. This knowledge has been used for the benefit of all the people. Surely such a record will stand the scrutiny of the "New Dealers," or any other group of so-called enlightened persons.

## KEEP FAITH WITH FACTS

The medical profession of this country has always been most progressive. Today no one need go abroad in order to study any branch of medical science, for our medical schools, hospitals and physicians are equal to or surpass any in the world. However, we appreciate the fact that our results are far from perfect, as are those of all human institutions; but we are striving to correct errors and render better service to those who come under our care. The greatest fault is not ours, but is one of economics and the distribution of service.

There are those persons who seem to think that destruction of time-honored customs and traditions connote progress, and that any system or plan which has imperfections must be discarded and replaced by a brand-new experiment, which often has no reasonable likelihood of success. But progress in any branch of science can be made only by slowly developing and using what has been proven to be good, and by seeking remedies for the defects which arise, and not by any revolutionary step. We cannot go beyond the economic possibilities of the people whom we serve.

The hue and cry set up by the government is caused by the fact that the American Medical Association is a thorn in the side of the New Deal. It would require more space than I have at my disposal to set forth in detail the history leading up to the recent attacks upon the Association by the government. Suffice to say, there has been secretly planned an attack which would not only rob us of any voice in the management of our affairs, but would compel us to yield every ethical prin-



ciple, so that professional secrecy and patient-physician relationship would be destroyed. We know that this will do irreparable harm to the people who are sick and otherwise in distress.

In addition to the secret plans, there has been a systematic effort made to discredit and belittle the American Medical Association. Paid writers and propagandists have plied magazines and newspapers with all manner of half-truths in order that the people will be led to believe the worst about us. The climax of all of this came when a popular entertainer was engaged to secure an indictment by a grand jury, of certain officers of the American Medical Association and the Medical Society of the District of Columbia. The charge is that we are in restraint of trade. But any charge will do if given the proper set-up, and in the absence of any real basis for a charge. It is a unique experience for us to be charged with something entirely out of our sphere, for it must be that we are quite satisfactory as physicians, but poor tradesmen.

For the last several months each time that the American Medical Association was about to meet or plan any event that would attract public attention, the inspired prosecutor in Washington would at the psychologic moment issue a lengthy attack upon us, undoubtedly studied and not accidental.

It is too well known to the New Deal that the medical profession is sufficiently influential to make trouble when socialism and communism are being planned. Dictators and demagogues set up groups for destruction, when such groups stand in the way of attainment of their purpose. Such facts as these do not indicate the degree of orderliness that we are accustomed to expect from our government. It seems obvious that the real motive is hidden behind a pretense of helping those individuals who do not get adequate medical care. Neither do such persons get adequate shelter, food and clothing; but the farmer, the merchant and the landlord are not held up as enemies to society because of these conditions.

No one has the slightest idea that the officers of the American Medical Association and the District of Columbia Medical Society will be convicted, but the public will be told that

we are a terrible lot, and just about the time the trial comes up, Congress will convene and bills will be introduced which our persecutors hope will take from us our most cherished traditions and our greatest incentive for progress.

Many persons, for one reason or another, favor sickness insurance and cite the Scandinavian countries as examples of the advantages of complete socialization of the practice of medicine. These advocates forget that the only examples given by them are small countries with homogeneous populations, while ours is a vast territory with a heterogeneous population, much of which accepts governmental aid and subsidies at the expense of its self-respect and initiative.

The systems in Germany, Russia, Spain, Cuba, and to a lesser degree in England, should be studied critically before delivering over a great profession to the politicians on the one side and a demanding group of citizens on the other. In deciding all such questions, *reason*, and not *hysteria*, should prevail.

WILLIAM H. MYERS, M.D.  
*President-Elect.*

Savannah, Ga., Dec. 27, 1938.

#### MOTION PICTURE FILMS FOR LOAN

Our county medical societies may borrow motion picture films by communicating with Dr. Thomas G. Hull, Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Ill. The borrower is expected to pay transportation charges both ways and should be careful when running them. The motion pictures are on various scientific subjects. The material falls into two groups:

1. Pictures for medical societies and other scientific organizations.
2. Pictures for the public.

Among which there are several on physical therapy.

#### SCIENTIFIC EXHIBIT AMERICAN MEDICAL ASSOCIATION

Application blanks are now available for space in the Scientific Exhibit at the St. Louis Session of the American Medical Association, May 15-19, 1939. Attention is called to the fact that the meeting is a month earlier than usual, and applications close January 5, 1939. Blanks will be sent on request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago, Ill.



### WOMAN'S AUXILIARY: OFFICERS 1938-1939

President—Mrs. Warren A. Coleman, Eastman.  
 President-Elect—Mrs. Eustace A. Allen, 18 Col-  
 lier Road, N. W., Atlanta.

First Vice-President—Mrs. H. G. Banister, Ila.  
 Second Vice-President—Mrs. Jas. L. Nevil,  
 Metter.

Third Vice-President—Mrs. D. T. Rankin, Alto.

Parliamentarian—Mrs. Ralph H. Chaney, Forest Hills, Augusta.

Recording Secretary—Mrs. Cleveland Thompson,  
 Millen.

Corresponding Secretary—Mrs. J. Cox Wall,  
 Eastman.

Historian—Mrs. C. C. Brannen, Moultrie.

Treasurer—Mrs. Robert Woodbury, Augusta.

#### GEORGIA MEDICAL AUXILIARY

Woman's Auxiliary to Georgia Medical Society held the regular November meeting at the home of the President, Mrs. Lehman W. Williams. Messages of condolence were sent from the meeting to the families of Dr. Victor H. Bassett, Dr. Alfred Larson and Dr. Eugene Baker. The Auxiliary voted to assist the Tuberculosis Association with the annual Seal Sale. Mrs. Otto Schwalb reported on recent card tournament.

Mrs. L. W. Williams told of the lovely birthday party given to the boy who occupies the Auxiliary's bed at the Sunshine Unit.

Plans to have the January meeting a Public Relations meeting were discussed and the following committee appointed to plan a program for such a meeting: Mesdames Harry M. Kandel, Otto Schwalb, Julian K. Quattlebaum, Lee Howard and William R. Dancy.

The Program chairman presented Mrs. T. H. D. Griffiths, who gave a splendid review of Dr. Hertzler's book, "The Horse and Buggy Doctor." Mrs. Ralph E. Porter and Mrs. Frank R. Stephenson were guests at the meeting. At the close of the meeting a social hour was enjoyed. Hostesses with Mrs. Williams were Mrs. H. H. McGee, Mrs. R. E. Graham and Mrs. J. C. Metts.

#### Fifth District

Members of the auxiliary to the Fifth District Medical Society met Thursday evening, October 6, at the Academy of Medicine on Prescott Street. This was the annual fall meeting of the group.

Mrs. Eustace A. Allen, district manager, presided and introduced the speakers.

Dr. C. C. Aven, president of the Fulton County Medical Society, spoke on "Of What Assistance Is the Auxiliary to the Medical Society?" Dr. Grady N. Coker, of Canton, president of the Medical Association of Georgia, talked on "The Solution of Our Problems" and Mrs. Warren A. Coleman, of Eastman, president of the Auxiliary to the Medical Association of Georgia, outlined briefly the aims of the auxiliary. Her subject was "Our Program."

Mrs. Allen introduced Mrs. Ralph H. Chaney, of Augusta, the immediate past

president of the State Auxiliary; Mrs. W. B. Schaeffer, of Toccoa, chairman of Doctor's Day for the state group; Mrs. Grady N. Coker, of Canton; Mrs. Howard M. Clute, of Boston, and Mrs. M. L. Blatt, of Chicago, wives of distinguished speakers appearing before the doctors' group that same evening, and members of the fifth district auxiliary who have held local, district and state offices in the past.

Mrs. O. H. Matthews presented as an important part of the business session the list of nominees from the nominating committee, of which she was chairman. Serving with her were Mrs. Harry Rogers and Mrs. B. L. Shackleford.

The officers elected unanimously for two years are: Mrs. George A. Williams, district manager; Mrs. Martin T. Myers, vice-president, and Mrs. E. Y. Walker, secretary.

New chairmen are: Mesdames Ed Greene, public relations; R. E. Newberry, student loan; J. C. Blalock, Jane Todd Crawford Memorial; H. Cliff Sauls, legislation; F. M. Barfield, Doctors' Day; Calvin Stewart, health films; Linton Smith, Hygeia; O. H. Matthews, health education; Joseph Yampolsky, Research in Romance of Medicine; John Turner, decorations; Calhoun McDougall, scrap-book; and J. Harry Rogers, press and publicity.

#### Clark County

"Socialized Medicine" was discussed by Dr. W. D. Gholston, of Danielsville, at the meeting of the Clark County Auxiliary in October, held at the home of Mrs. H. H. Cobb in Athens. Dr. Gholston said that the American Medical Association has never opposed help from the government in caring for the sick, but they do oppose interference between the doctor and the patient, which is fundamental in good medical care. He reminded that much data is available to prove that the method of conducting practice in the United States is more efficient than in any country in Europe where so-called "state medicine" is in use.

The president, Mrs. H. G. Banister, appointed Mrs. Harvey Cabaniss and Mrs. Stewart Brown captains of two groups to

wage a contest to secure most paid-up members, largest amount for the Student Loan Fund and for Health Films, and the most subscriptions to Hygeia. The winners will be entertained by the losers on Doctors' Day. Mrs. Cabaniss' group is Mesdames H. I. Reynolds, Guy Whelchel, Lee McCrary, H. B. Harriss, Weyman Davis, Marion Hubert, Charles Brightwell, Ralph Goss, L. S. Patton, S. S. Smith and G. T. Canning; and Mrs. Brown's group is Mesdames G. W. Kelley, C. H. Bryant, H. W. Birdsong, G. L. Loden, Henry Holliday, John Simpson, Dan DuPree, H. M. Fullilove, L. L. Whitley, and W. D. Gholston. Miss Myrtice Estes gave piano selections, after which luncheon was served.

#### *Bibb County*

Miss Susan Myrick, Macon Telegraph columnist and feature writer, spoke on "Problems of the Adolescent" at the October meeting of the Bibb County Auxiliary, held with Mrs. Tom Harrold and Mrs. W. A. Newman, co-hostesses, at Mrs. Harrold's home. Mrs. J. D. Applewhite, program chairman, introduced the speaker. Mrs. I. L. Domingoes spoke on behalf of the Wesleyan campaign and reports were given by committee chairmen. Mrs. H. F. Larramore was welcomed as a new member and Mrs. F. B. Ward and Mrs. J. H. Gressette were visitors. Mrs. Ernest Corn and Mrs. Dillard Harber assisted the hostesses in serving tea.

#### *Fulton County*

The Fulton County Auxiliary held interesting meetings at the Academy of Medicine in Atlanta the first Friday in October and the first Friday in November. Mrs. B. L. Shackelford, president, presided over both meetings, which were followed by luncheon.

Mrs. Warren A. Coleman, of Eastman, state president, was welcomed at the October meeting and interestingly outlined some of her objectives. Dean Raimundo de Ovies, of St. Phillip's Cathedral, gave a most instructive talk. The year books, of which Mrs. Eustace Allen was chairman, were distributed.

The November meeting was featured by a review of "The Horse and Buggy Doctor" by Dr. Arthur Hertzler, which was given by Mrs. Ruth Hinman Carter. Each meeting was largely attended and much enthusiasm was manifest.

#### *Richmond County*

The Woman's Auxiliary to Richmond County met for the October meeting at the home of Mrs. Ralph Chaney, with Mrs. Robert Crichton, Mrs. J. Victor Roule and Mrs. A. P. Briggs hostesses. Miss Fannie B. Shaw, director of health education in the State Department of Public Health, talked on the health program of the Medical Auxiliary. Plans were made for the annual bridge party,

to be given at the Doughty Nurses' Home. Tea was served, with Hallowe'en decorations being carried out.

### BIOPSIES†\*

The most accurate method for the diagnosis of malignancy is the microscopic examination of a portion of the tumor by an expert pathologist.

Details for performing biopsies vary with the individual situation; some are performed with the scalpel, others with the electric knife, some by one or other of several punches which are on the market, and still others by curettage. *In suspected cancer patients, living and not necrotic tissue must be removed, preferably with a bit of the surrounding tissue; merely clipping off of the surface of a tumor is not adequate.*

Another recent development for performing biopsy is the aspiration method. A needle with a fairly large bore is punched into the tumor; after withdrawal the lumen is cleaned with an obturator, and the small sections of tissue may be quickly examined, frequently insuring early diagnosis. This is particularly of value in lesions located below the surface, such as within the lung, and can usually be performed with little danger or discomfort to the patient.

*The best fixative is 10 per cent formalin solution.* The tissue should be immediately placed in a volume about ten times as great as the mass of tissue removed.

The grading of tumors either for prognosis or radiation sensitivity is of academic interest, but in some locations of the body aids greatly in indicating the best method of treatment and the amount of irradiation to be used. When a malignant tumor is present, everything possible should be done to eradicate it, irrespective of histologic grading.

Biopsy is of value in following the course of treatment—sometimes of critical value and also, if properly done, it is harmless.

Details of the history are important to the pathologist in all patients and should always be sent with the specimen. This is particularly important in those in whom physiologic activities are likely to be superimposed in and

\*Published by the Cancer Commission of the Medical Association of Georgia.

†Dr. H. N. Kingsford, New Hampshire Medical Society.



## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*BEDS FOR THE CARE OF  
TUBERCULOUS PATIENTS

Probably the greatest contributing cause for tuberculosis still remaining one of the principal causes of deaths is the complacency of the public regarding it. In spite of the fact that tuberculosis is of known cause and is preventable, the general public has become accustomed and reconciled to it to such an extent that it will do little toward putting into vigorous operation the measures we know can eliminate it.

It has been said that if and when the public becomes aroused to the same degree that it becomes aroused when there is a so-called epidemic of infantile paralysis, there would be little difficulty in obtaining complete and absolute control of tuberculosis. In the United States in 1936 there were 788 deaths from infantile paralysis, while in the same year there were about 70,000 deaths from tuberculosis. In Georgia in 1937 there were 20 deaths from infantile paralysis but during the same period there were 1,549 deaths from tuberculosis.

The cause of poliomyelitis is not known. We do know how to control it. In tuberculosis the picture is altogether different; we do know its cause; we know how to prevent it. We can do much with treatment. Yet with only 20 deaths from poliomyelitis the public becomes greatly excited and with more than 1,500 deaths from tuberculosis it remains apathetic. Even though poliomyelitis numbers many with permanent disabilities among those who have recovered, they do not constitute a menace to other people. In tuberculosis we have constantly with us more than 7,500 patients with tuberculosis in all stages and with every degree of disability and we know that a fifth of them will die during the year and that many of those who do not die will constitute a menace to the public, often for long periods of time.

And still we go on, year after year, refusing to see our principal need, or refusing to provide for it.

Last year we had the pleasure of witnessing a large reduction in the number of deaths—164 less than in 1936. This unusual reduction followed a particular effort to afford lung collapse measures with as little delay as possible to all persons found to require them. No doubt the effect of this was in many cases only a prolongation of life for a brief time and it may be expected in this year that there may be no further decline in number of

deaths, but rather that there may even be an increase. The writer does not believe that lung collapse measures without bed care in active cases can be of much benefit. Neither is it considered of particular benefit for patients to have pneumothorax unless they can be maintained in bed so long as the disease is active. It must not be forgotten that many an apparently hopeless case has made complete recovery on bed care alone. There has not yet been found a substitute for the bed in treating tuberculosis and it should be the first thought in every case. The bed does not have to be in a sanatorium. It can just as well be in the home. But for the poor it will usually have to be in an institution—not necessarily in a sanatorium—where rest, food and shelter may be provided together with medical attention as it may be required. Medical attention is purposely placed at the foot of the list of requirements. After the diagnosis is made the wise physician will be more concerned in having his patient provided with rest, food and shelter and in his isolation than in anything else.

The wonder is that, without having provided food, shelter and isolation to those not able to secure it for themselves, anything has been accomplished.

In a recent survey made by the State Health Department in which returns to date (October 10, 1938) have been received from 113 counties, we have the names and addresses of 1,292 patients who are homeless or are dependent on charity or their own labor for food and shelter. Inasmuch as they are sick and therefore disabled, they are not able to adequately provide for themselves or their families. For these patients the crying need is a sufficient number of beds provided by public funds. Whether such beds should be hospital beds or beds in institutions to provide domiciliary care and isolation chiefly depends entirely upon the condition of the patient and the type of treatment and care that appears advisable in each individual case.

In the survey mentioned above, 601 were Negroes and this brings up the need for facing another important fact; 62 per cent of the deaths from tuberculosis in the State in 1937 occurred in 36 per cent of the population, that is, in the Negro population. If we are to have control of tuberculosis in Georgia, we must do everything we possibly can to close up the sources of infection among the Negroes. In this low income group can be found the real reservoirs of tuberculous infection. This



knowledge justifies the belief that tuberculosis in the State cannot be controlled without instituting vigorous case-finding, treatment and isolation measures in the Negro population. In this connection we must keep in mind, as has been mentioned on a number of occasions by other writers, that tubercle bacilli know no color line. And it requires no stretch of the imagination to conclude that to get rid of tuberculosis in either race, it must be eliminated simultaneously in the other.

Recently WPA projects for repairs and alterations at the State Tuberculosis Sanatorium at Alto have been approved. When they are completed we will have a potential capacity of about 390 patients. In addition, a PWA project has been approved which will provide an additional 240 beds, and, while the situation will be helped very materially, far from the required number of beds to even take care of all of the homeless and indigent tuberculous patients scattered throughout the State will be provided, and the challenge to welfare departments to adequately take care of this great number of individuals, both white and colored, will remain very much as it is now.

If, in addition to the beds to be made available in hospital buildings at Alto, there could be provided 600 or 700 more beds for the domiciliary care for both white and colored patients, the problem would be more nearly solved. It is not necessary to think in this connection of expensive hospital buildings. One story frame buildings would answer the purpose and would be much cheaper to construct. Patient maintenance cost in these additional institutions should be much less per capita than they would be in hospital buildings because expensive medical and nursing personnel would not be required. The affording of such beds in abundance would be of immense value in making treatment more satisfactory, and what is more important, in checking the spread of tuberculous infection. Only by such means would it be possible to make great strides in the control of tuberculosis.

The more beds we have, the more isolation of communicable cases we will have. The more isolation of such cases we have, the sooner we shall whip out the scourge of tuberculosis. Let's work for beds and funds to maintain patients in them. If beds could be provided for every case of tuberculosis in the United States and isolation of every communicable case could be effected tuberculosis would soon become a rare disease.

H. C. SCHENCK, M.D., *Director  
Division of Tuberculosis Control*

The Medical Association of Georgia will hold its ninetieth annual session at the Biltmore Hotel, Atlanta, April 25-29, 1939.

## BIOPSIES

(Continued from page 29)

around tumors, such as menstrual hyperplasias in carcinoma of the uterus.

Occasionally a clinical diagnosis of malignancy is not sustained by the microscopic picture, whereupon a *consultation with the pathologist* is imperative. A slight margin of disagreement in the diagnosis between quickly made frozen sections and regular sections still exists. This disagreement is of immediate practical importance only if it concerns malignancy versus non-malignancy and not if a mere name for a tumor or other condition is in question. Tissues, unless too dense, can usually be prepared in 24 to 36 hours, but the diagnosis is too serious for uncertainty to be present because of poor preparations.

To summarize: biopsies are harmless if done properly; they usually settle the diagnosis, but pieces of tissues must be properly chosen for this purpose. They are also necessary in many cases to follow the course of treatment. The pathologist can be depended upon to use methods of preparation of his materials to insure the quickest reports consistent with the accuracy demanded.

There is more danger from massage or repeated manipulation in making examinations, especially in cancer of the breast, than in doing a biopsy.

## NEWS ITEMS

THE SIXTH DISTRICT MEDICAL SOCIETY met in Ridley Hall, Macon, December 7. Titles of papers on the scientific program were: *Etiology, Diagnosis and Treatment of Scarlet Fever*, by Dr. W. M. Cason, Sandersville; *Significance of Rectal Pain*, Dr. A. M. Phillips, Macon; *Pneumococcus Meningitis—Case Report*, Dr. J. A. Bell, Jr., Dublin; *Some Experiences with the Administration of Antipneumococcus Sera*, Dr. Chas. B. Fulghum, Milledgeville; *Tachycardia—Report of Cases*, Dr. J. A. Fountain and Dr. Thomas Ross, Macon; *Clinical X-Ray Conference*, Dr. I. J. Pass, Macon; *Address*, Dr. Grady N. Coker, Canton, president of the Association.

THE COLQUITT COUNTY MEDICAL SOCIETY met at Moultrie on December 9. Dr. Carl Shepard, Moultrie, read a paper on *Sulfanilamide Therapy*; Dr. W. R. McGinty, Moultrie, reported cases.

DR. ROY R. KRACKE, Emory University, will speak before the meetings of the International Post-Graduate Medical Assembly of Southwest Texas at San Antonio, January 24-25-26 on *Diagnosis and Treatment of Hemolytic Jaundice, The Leukopenic Disorders, and Differential Diagnosis and Treatment of the Anemias*.

DR. C. W. STRICKLER, JR., Atlanta, has been elected president of the staff of Emory University Hos-

pital; Dr. Francis P. Parker, Emory University, vice-president; Dr. Homer H. Allen, Decatur, secretary-treasurer.

DR. LINTON Gerdine and DR. JOHN A. SIMPSON, Athens, were in charge of and directed a health clinic for underprivileged children at Athens in December.

THE NEW CLASSROOM-CLINIC BUILDING at the University of Georgia School of Medicine, Augusta, was dedicated on December 9. Dr. Eugene E. Murphy was the principal speaker. Dr. G. Lombard Kelly presided at the exercises.

DR. CHARLES C. HARROLD, Macon, discussed the hospital situation in Macon before a meeting of the Macon Kiwanis Club on December 7.

THE CLINICAL SOCIETY of the New York Polyclinic Medical School and Hospital held its monthly meeting on Monday evening, January 8, 1939, at which time the following program was presented: *The Prostate and the Practitioner*, by Joseph F. McCarthy, M.D., Professor of Urology, New York Polyclinic Hospital; discussion was opened by J. Sydney Ritter, M.D., and Samuel E. Kramer, M.D. *Recent Advances in the Treatment of Internal Diseases*, by Llewellyn F. Barker, M.D., Baltimore, Md.; discussion was opened by Orrin S. Wightman, M.D., Bernard Sachs, M.D., and James P. Croce, M.D. *Clinical Diagnosis of Peripheral Vascular Diseases—Motion Pictures*, by Benjamin Jablons, M.D., New York Polyclinic Hospital. Dr. H. M. Eberhard, Professor of Gastroenterology at Hahnemann Medical School, Philadelphia, Pa., read a paper on *The Effect of Hot and Cold on the Gastro-intestinal Tract* on Thursday, December 15th at 3:30 P. M. Dr. Rudolf Schindler, Chicago, Ill., read a paper on *The Clinical Value of Gastroscopy* on Wednesday, November 30, at 2:30 P. M.

THE STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held on December 8. Titles of cases reported were as follows: *Ruptured Diverticulum*, by Dr. Kells Boland; *Bacterial Endocarditis*, Dr. W. W. Daniel. Subjects of mortalities discussed were: *Tumor of the Stomach*, Dr. H. N. Kraft; *Cerebral Hemorrhage*, Dr. Archibald Smith and Dr. E. A. Bancker; *Diabetic Coma*, Dr. H. M. S. Adams; *Duodenal Ulcer, Hemophilia (Autopsy)*, Dr. Jeff L. Richardson; *Nephrosclerosis (Autopsy)*, Dr. C. W. Daniels; *Acute Ulcerative Bacterial Endocarditis of the Aortic Valve (Autopsy)*, Dr. M. K. Jenkins and Dr. W. W. Daniel.

THE STAFF MEETING of Grady Hospital, Atlanta, was held on December 13. Dr. Jesse H. York reported a case of *Parovarium Cyst and Pregnancy*; Dr. C. W. Strickler, Sr., *Post Typhoid Sepsis*; Dr. Dan C. Elkin and Dr. M. R. Holtzclaw, *Presentation of Case*.

DR. C. M. SHARP has been appointed superintendent of the State Tuberculosis Sanatorium at Alto. For a number of years Dr. Sharp was engaged in treating tuberculosis patients at Trudeau Sanatorium, Truden, N. Y., and at hospitals in Saranac Lake, N. Y. He is the son of Dr. C. K. Sharp, Arlington, past president of the Association.

DR. J. A. SIMPSON, Athens, was in charge of the first well baby clinic held at Athens early in December. He will continue to be director for a period of three months; then Dr. Linton Gerdine, Athens, will direct the clinics for three months.

THE BURKE COUNTY MEDICAL SOCIETY and the Jenkins County Medical Society met at the Hut near Waynesboro on December 1. Barbecue dinner was served.

DR. WARREN A. COLEMAN arranged and held the first dermatologic clinic at the Coleman Sanatorium, Eastman, on December 6. Among those present were Dr. J. E. New, Dexter, who was present and helped to organize the Ocmulgee Medical Society which is composed of the counties of Bleckley, Dodge and Pulaski. The Society was organized thirty years ago.

DR. HOLT DARDEN, DR. S. P. HOLLAND, DR. J. G. STANDIFER and DR. W. H. WALL, all of Blakely, attended a joint meeting of the Randolph and Terrell Counties Medical Societies held at Cuthbert on December 2.

DR. CHAS. H. RICHARDSON, Macon, spoke before an East Macon Community Forum on *Socialized Medicine*, December 2.

DR. J. R. CHILDS, Atlanta, was elected president of the Piedmont Hospital medical staff; Dr. T. L. Tidmore, vice-president; Dr. Wm. R. Minnich, re-elected secretary-treasurer.

DR. JAS. J. CLARK, Atlanta, was re-elected president of the Georgia Radiological Society at its annual meeting held in Macon on December 13.

DR. B. T. BEASLEY, Atlanta, was guest speaker at a joint meeting of the Northwestern and Southwestern Divisions of the Medical Association of the State of Alabama on December 9.

DR. L. C. FISCHER, Atlanta, has turned over the Crawford W. Long Memorial Hospital to a board of trustees to operate for the benefit of the public.

DR. M. J. EGAN, Savannah, was elected president of the St. Joseph Hospital staff; Dr. H. M. Kandel, vice-president; and H. H. McGee, re-elected secretary.

DR. EARL FLOYD, Atlanta, was elected president of the Southeastern Branch of the American Urological Association at a recent meeting held in Louisville, Ky.; Dr. J. Ulman Reaves, Mobile, Ala., vice-president; Dr. Louis Orr, Orlando, Fla., secretary-treasurer.

THE EQUITABLE LIFE ASSURANCE SOCIETY, New York City, announces that a Public Health Committee was appointed at the last meeting of the Association of Life Insurance Medical Directors. Dr. Harry E. Ungerleider, 393 Seventh Avenue, New York City, is chairman.

DR. B. H. MINCHEW, Waycross, and Dr. J. A. Redfearn, Albany, spent January 2-7 in New Orleans, La., visiting the various hospital clinics in the city.

DR. J. R. GARNER, Atlanta, chief surgeon of the A. & W. P. R. R. Co., Western Railway of Alabama and Georgia R. R., was an invited guest speaker be-

fore the Sullivan-Johnson County Medical Society at Kingsport, Tenn., January 4, on the *Treatment of Cancer*. Dr. Garner conducted a clinic at the Indianapolis City Hospital, Indianapolis, Ind., on January 11.

THE THOMAS COUNTY MEDICAL SOCIETY met at the Archbold Memorial Hospital, Thomasville, December 21. Dr. Arthur D. Little, Dr. H. M. Moore and Dr. C. K. Wall were appointed on the Nominating Committee to select officers for the ensuing year which were duly elected. Roster appears on another page in this *Journal*. Dr. Grady E. Clay, Atlanta, spoke on *Medical Ophthalmology* and illustrated the lecture with lantern slides; Dr. Wm. L. Funkhouser, Atlanta, spoke on *Pediatrics*, illustrated with lantern slides and discussed by Dr. Helen W. Bellhouse, Thomasville; Dr. R. M. Joiner, Moultrie; Dr. H. M. Moore and Dr. J. J. Collins, Thomasville. Dr. A. J. Logie, Jacksonville, Fla., read a paper entitled *The Changing Picture of Tuberculosis*, discussed by Dr. Helen W. Bellhouse, Thomasville, and Dr. W. L. Cousins, Atlanta. Dinner was served at the American Legion Home.

THE BOARD OF TRUSTEES of the Cook County School of Medicine, Chicago, announces the election of Dr. John R. Neal, Springfield, Ill., dean of the School.

THE MEMBERS of the South Georgia Medical Society, composed of the counties of Berrien, Clinch, Cook, Echols, Lanier and Lowndes, were entertained at a turkey dinner by Dr. and Mrs. L. R. Hutchinson, Adel, December 13. Those present were: Dr. L. J. Ring, Lenox; Dr. P. H. Askew, and Dr. W. W. Turner, both of Nashville; Dr. E. J. Smith and Dr. J. R. Smith, Habira; Dr. G. T. Crozier, Dr. A. M. Johnson, and Dr. T. H. Smith, Valdosta; Dr. H. W. Clements and Dr. W. M. Shepard, Adel.

DR. G. F. HAGOOD, Marietta, has been elected president of the Marietta Hospital staff for 1939; Dr. W. H. Perkinson, Marietta, vice-president; Dr. A. H. Fowler, Marietta, secretary-treasurer. Members of the staff are: Dr. G. O. Allen, Dr. C. D. Elder, Dr. W. Mayes Gober, Dr. A. H. Fowler, Dr. R. W. Fowler, Dr. G. F. Hagood, Dr. Murl M. Hagood, and Dr. W. H. Perkinson, all of Marietta; and Dr. J. W. Ellis, Kennesaw.

THE EMORY UNIVERSITY HOSPITAL STAFF did not hold its regular January meeting. The next meeting will be held February 6.

THE MACON MEDICAL SOCIETY of Bibb County held its regular monthly meeting at Ridley Hall, Macon, January 3. Dr. Y. H. Yarbrough read a paper entitled *Relation of Mental Illness to Physical Illness*.

DR. M. L. WEBB, Tifton, entertained members of the Tift County Medical Society in his home at a turkey dinner, December 15.

DR. JNO. L. ELLIOTT, Savannah, has been elected coroner of Chatham county.

DR. Y. H. YARBROUGH, Milledgeville, has been appointed assistant superintendent of the Milledgeville State Hospital.

DR. AND MRS. C. T. HARDMAN, Tallulah Falls, entertained members of the Habersham County Medical Society and Auxiliary at the Cornelia Community House, December 8.

DR. T. H. CHESNUTT, Moultrie, after taking a three months course in public health administration at the University of North Carolina School of Medicine, has returned to Moultrie and resumed his former duties as Colquitt County Commissioner of Health.

DR. C. W. REID, Pelham, entertained the members of the Mitchell County Medical Society at a bird dinner, December 2. Congressman E. E. Cox of Camilla, was the principal speaker.

THE WARREN A. CANDLER HOSPITAL, Savannah, will have a room furnished and dedicated to the memory of the late Dr. A. A. Morrison, who died on October 17, 1938.

THE STAFF MEETING of Grady Hospital, Atlanta, was held on January 10. Dr. Wadley Glenn reported *Experience with Rectal Evipal in Thyroid Surgery*; Dr. H. S. Alden and Dr. P. H. Nippert reported and presented a case, *Sporotrichosis*.

THE NEWTON COUNTY MEDICAL SOCIETY met at Hotel Delaney, Covington, December 13. Plans were made to hold semi-monthly prenatal clinics to examine and advise expectant mothers.

DR. L. C. FISCHER, Atlanta, was re-elected president of the United Hospital Service Association of Atlanta at a meeting held recently; Dr. G. Pope Huguley, Atlanta, vice-president.

DR. C. C. AVEN, Atlanta, was a speaker on the Atlanta Journal editorial hour over WSB on January 1.

THE FULTON COUNTY MEDICAL SOCIETY, Atlanta, held its thirty-fourth anniversary meeting and banquet at the Piedmont Driving Club on January 5. Dr. C. C. Aven, past president of the Society, installed the new officers as follows: President, Dr. Edgar H. Greene; President-elect, Dr. Chas. E. Rushin; Vice-President, Dr. J. D. Martin, Jr.; member of the Board of Trustees, Dr. W. W. Daniel; other members are: Dr. J. T. Floyd, chairman, Dr. S. T. Brown, Dr. Grady E. Clay and Dr. H. C. Sauls. Members of the Judicial Council are: W. S. Dorough, chairman, Dr. Walter R. Holmes, Dr. T. P. Goodwyn, Dr. B. L. Shackelford and Dr. C. B. Upshaw. Committee on L. C. Fischer Awards: Dr. Allen H. Bunce, chairman, Dr. F. K. Boland and Dr. F. P. Calhoun. Dr. M. T. Harrison is secretary-treasurer.

DR. J. A. THRASH, Columbus, Columbus-Muscogee county health officer, has been elected superintendent of the Muscogee County Tuberculosis Hospital.

THE TATTNALL COUNTY MEDICAL SOCIETY met at Reidsville on December 20.

DR. H. D. YOUMANS, Lyons, has enlarged his offices and has rooms equipped for minor operations and after care of patients.



## COUNTIES REPORTING FOR 1939

*Macon Medical Society of Bibb County*

The Macon Medical Society of Bibb County announces the following officers for 1939:

President—Harrold C. Atkinson, Macon.  
 President-Elect—Jas. I. Hall, Macon.  
 Vice-President—Robert W. McAllister, Macon.  
 Secretary-Treasurer—A. M. Phillips, Macon.  
 Delegate—J. A. Fountain, Macon.  
 Delegate—Thos. L. Ross, Jr., Macon.  
 Alternate Delegate—C. Hall Farmer, Macon.  
 Alternate Delegate—J. B. Kay, Byron.

*Glynn County Medical Society*

The Glynn County Medical Society announces the following officers for 1939:

President—M. E. Winchester, Brunswick.  
 Vice-President—Webb Conn, Brunswick.  
 Secretary-Treasurer—T. V. Willis, Brunswick.

*Jenkins County Medical Society*

The Jenkins County Medical Society announces the following officers for 1939:

President—Q. A. Mulkey, Millen.  
 Vice-President—G. J. Bridges, Millen.  
 Secretary-Treasurer—J. J. Folk, Millen.  
 Delegate—J. J. Folk, Millen.  
 Alternate Delegate—Q. A. Mulkey, Millen.

*Troup County Medical Society*

The Troup County Medical Society announces the following officers for 1939:

President—F. J. Amis, Hogansville.  
 Vice-President—C. W. Harvey, Hogansville.  
 Secretary-Treasurer—Kenneth D. Grace, LaGrange.  
 Delegate—E. C. Herman, LaGrange.  
 Alternate Delegate—C. W. Harvey, Hogansville.

*Ware County Medical Society*

The Ware County Medical Society announces the following officers for 1939:

President—L. W. Pierce, Waycross.  
 Vice-President—Leo Smith, Waycross.  
 Secretary-Treasurer—K. McCullough, Waycross.  
 Delegate—W. F. Reavis, Waycross.  
 Alternate Delegate—T. J. Ferrell, Waycross.

*Dougherty County Medical Society*

The Dougherty County Medical Society announces the following officers for 1939:

President—W. B. Buckner, Albany.  
 Vice-President—H. M. McKemie, Albany.  
 Secretary-Treasurer—I. M. Lucas, Albany.  
 Delegate—Alex Freeman, Albany.  
 Alternate Delegate—N. R. Thomas, Albany.  
 Censors—J. M. Barnett, A. H. Hilsman and J. A. Redfearn.

*Bartow County Medical Society*

The Bartow County Medical Society announces the following officers for 1939:

President—W. E. Wofford, Cartersville.  
 Vice-President—J. W. Stanford, Cartersville.  
 Secretary-Treasurer—W. B. Quillian, Jr., Cartersville.  
 Delegate—W. E. Wofford, Cartersville.

Alternate Delegate—W. B. Quillian, Jr., Cartersville.

Censors—T. Lowry, J. W., Stanford and W. E. Wofford.

*Carroll County Medical Society*

The Carroll County Medical Society announces the following officers for 1939:

President—S. F. Scales, Carrollton.  
 Vice-President—E. G. Kirby, Bowdon.  
 Secretary-Treasurer—D. S. Reese, Carrollton.  
 Delegate—J. E. Powell, Villa Rica.  
 Alternate Delegate—O. R. Styles, Bowdon.

*Hall County Medical Society*

The Hall County Medical Society announces the following officers for 1939:

President—L. G. Neal, Cleveland.  
 Vice-President—B. B. Chandler, Clermont.  
 Secretary-Treasurer—Hartwell Joiner, Gainesville.  
 Delegate—E. L. Ward, New Holland.  
 Alternate Delegate—J. K. Burns, Gainesville.  
 Censors—B. B. Davis, C. G. Butler and Hartwell Joiner.

*Jackson-Barrow Counties Medical Society*

The Jackson-Barrow Counties Medical Society announces the following officers for 1939:

President—Alex B. Russell, Winder.  
 Vice-President—J. H. Campbell, Commerce.  
 Secretary-Treasurer—C. B. Lord, Jefferson.  
 Censors—L. C. Allen, W. T. Randolph and A. A. Rogers.

*Georgia Medical Society  
(Chatham County)*

The Georgia Medical Society announces the following officers for 1939:

President—L. W. Shaw, Savannah.  
 President-Elect—J. K. Quattlebaum, Savannah.  
 Vice-President—O. W. Schwalb, Savannah.  
 Secretary-Treasurer—S. Elliott Wilson, Savannah.

*Floyd County Medical Society*

The Floyd County Medical Society announces the following officers for 1939:

President—W. P. Harbin, Jr., Rome.  
 President-Elect—Ralph N. Johnson, Rome.  
 Secretary-Treasurer—Ralph N. Johnson, Rome.  
 Delegate—J. H. Mull, Rome.  
 Alternate Delegate—Warren Gilbert, Rome.

*Richmond County Medical Society*

The Richmond County Medical Society announces the following officers for 1939:

President—H. M. Michel, Augusta.  
 Vice-President—Geo. W. Mountain, Augusta.  
 Secretary-Treasurer—Thos. W. Goodwin, Augusta.  
 Delegate—W. J. Cranston, Augusta.  
 Delegate—L. P. Holmes, Augusta.

*Walker-Catoosa Counties Medical Society*

The Walker-Catoosa Counties Medical Society announce the following officers for 1939:

President—S. B. Kitchens, LaFayette.  
 Vice-President—B. C. Hale, Rossville.  
 Secretary-Treasurer—R. C. Shepard, LaFayette.

*Thomas County Medical Society*

The Thomas County Medical Society announces the following officers for 1939:

President—L. L. Lundy, Boston.  
 Vice-President—J. J. Collins, Thomasville.  
 Secretary-Treasurer—Helen Bellhouse, Thomasville.  
 Delegate—Roy A. Hill, Thomasville.  
 Alternate Delegate—Rudolph Bell, Thomasville.

#### *Upson County Medical Society*

The Upson County Medical Society announces the following officers for 1939:

President—F. M. Woodall, Thomaston.  
 Vice-President—J. A. Woodall, Thomaston.  
 Secretary-Treasurer—John D. Blackburn, Thomaston.  
 Delegate—B. L. Bridges, Thomaston.  
 Alternate Delegate—B. C. Adams, Thomaston.

#### *Tattnall County Medical Society*

The Tattnall County Medical Society announces the following officers for 1939:

President—A. C. Branch, Glennville.  
 Vice-President—L. R. Jelks, Reidsville.  
 Secretary-Treasurer—J. M. Hughes, Glennville.  
 Delegate—L. V. Strickland, Cobbtown.

#### *Butts County Medical Society*

The Butts County Medical Society announces the following officers for 1939:

President—B. F. Akin, Jackson.  
 Secretary-Treasurer—R. L. Hammond, Jackson.

#### *Clayton-Fayette Counties Medical Society*

The Clayton-Fayette Counties Medical Society announces the following officers for 1939:

President—J. R. Wallis, Lovejoy.  
 Vice-President—Y. R. Coleman, Jonesboro.  
 Secretary-Treasurer—T. J. Busey, Fayetteville.  
 Delegate—J. R. Wallis, Lovejoy.

#### *Whitfield County Medical Society*

The Whitfield County Medical Society announces the following officers for 1939:

President—H. L. Sams, Dalton.  
 Vice-President—J. E. Bradford, Spring Place.  
 Secretary-Treasurer—H. J. Ault, Dalton.  
 Delegate—D. L. Wood, Dalton.  
 Censors—J. C. Rollins, H. L. Sams and Trammell Starr.

#### *Tri-County Medical Society* (Calhoun, Early, Miller)

The Tri-County Medical Society announces the following officers for 1939:

President—H. B. Baxley, Blakely.  
 Vice-President—W. C. Hays, Colquitt.  
 Secretary-Treasurer—W. H. Wall, Blakely.  
 Delegate—Holt Darden, Blakely.

#### *Bulloch-Candler-Evans Counties Medical Society*

The Bulloch-Candler-Evans Counties Medical Society announces the following officers for 1939:

President—J. H. Whiteside, Statesboro.  
 Vice-President—W. E. Simmons, Metter.  
 Secretary-Treasurer—John Mooney, Jr., Statesboro.

## OBITUARY

*Dr. Harris Miller Branham*, Brunswick; member; College of Physicians and Surgeons, Baltimore, Md., 1888; aged 76; died at his home after an illness of short duration on October 28, 1938. He was a native of Ft. Valley. Dr. Branham served as Brunswick health officer for a number of years and was formerly United States Surgeon in charge of the Brunswick Quarantine station; and the first discoverer of yellow fever in that section of Georgia. His careful administration and assistance to the United States health officers were credited with holding the death rate to a minimum. Dr. Branham has been credited in press reports as the discoverer of what is known as the "Branham sign" which indicates the "Closure of an arteriovenous fistula by digital pressure results in the slowing of the pulse, increased diastolic pressure, and disappearance of the cardiac murmur." During his residence and the practice of medicine in Brunswick, he had frequently been honored and had held many responsible positions. Dr. Branham was the oldest of the Glynn county physicians and was known as the dean of the profession there. Surviving him are his widow, one daughter, Miss Helen Branham; one son, Harris M. Branham, Jr., Brunswick.

*Dr. Victor Hugo Bassett*, Savannah; member; Johns Hopkins University School of Medicine, Baltimore, Md., 1903; aged 67; died November 3, 1938, after an illness of several weeks duration. He was a native of Illinois and began his early English education at Knox College, then received his collegiate education at the University of Wisconsin. He began his medical career at the Milwaukee Medical College as professor of bacteriology and pathology. His work carried him to many of the hospitals in Baltimore, Chicago, New York and Milwaukee. Dr. Bassett had been a guiding figure in the Chatham-Savannah health work for more than thirty years. His untiring efforts and energy resulted in many improvements from time to time in sanitation, hookworm control, backward public health technic, and the introduction of modern means to make his health work most effective. Besides his writing on diphtheria, typhoid, tetanus and dysentery, his work included papers on history, among them *Voices of the Past* and biographical sketches of eminent physicians in Southeast Georgia. He was one time vice-president of the Georgia Public Health Association. As librarian of the Georgia Medical Society, he rearranged and indexed the Society's collection of books. His belief in statistics caused the vital records of Savannah to be indexed and by so doing information on deaths is available from 1803 and births from 1890. Infant and maternal mortality and deaths reduced, and a city laboratory and a diagnostic laboratory was installed during his term as health officer. Surviving him are his widow; one daughter, Mrs. Reuben A. Swenson, Whiting, Indiana; two sisters and one brother. The Rev. Samuel McP. Glasgow officiated at the funeral services. Burial was in Bonaventure cemetery. Members of the Georgia Medical Society formed an honorary escort.

*Dr. Alfred Larson*, Savannah; University of Illinois College of Medicine, Chicago, Ill.; aged 54; died suddenly of heart disease at his home on November 3, 1938. He was a native of Spring Lake, Michigan. After he graduated in medicine, he served internships at the Michael Reese Hospital and Albert Merritt Billings Hospital, Chicago, Ill. Then he began practice by limiting his practice to the diagnosis and treatment of tuberculosis at Haperville, Ill.; later he taught bacteriology at the University of Georgia School of Medicine, Augusta. At the time of his death, he was assistant health officer for the Chatham-Savannah health department. Surviving him is one sister, Mrs. Charles D. Hauser, Youngstown, Ohio. Burial was in the city cemetery at Wausau, Wisconsin.

*Dr. John H. O'Quinn*, Patterson; University of Georgia School of Medicine, Augusta, 1898; aged 69; died at his home on October 30, 1938. He was born near Screven and spent the early years of his life there, later he received his collegiate education at Mercer University, Macon. In 1898 he moved to Patterson and immediately engaged in the practice of medicine. Dr. O'Quinn was the last of the directors of the Patterson Bank who originally organized it and was the oldest surviving member of the Baptist church. Surviving him are his widow, two sons, Foster O'Quinn, Patterson, and Osborne O'Quinn, Fort Pierce, Florida; two daughters, Mrs. R. D. Thomas and Mrs. George Pomeroy, both of Patterson. Rev. Gordon Brooks, Chipley; Rev. A. M. McCool, and Rev. Lester Dixon officiated at the funeral services conducted at the home. Burial was in the Patterson cemetery.

*Dr. Walter C. Sims*, Richland; member; Emory University School of Medicine, Emory University, 1898; aged 66; died from injuries received in an automobile accident on November 20, 1938. He began practice in Weston and three years later moved to Richland where he practiced until his death. Dr. Sims was owner and director of the Sims Clinic at Richland. It has been stated that the clinic rendered an outstanding service to that section of the State. Sympathy and good cheer radiated from his path of service. For many years he served as local surgeon for the Seaboard Air Line Railway. Dr. Sims was a prominent physician and surgeon and held in high esteem by hundreds of acquaintances. He was a member of the Stewart-Webster Counties Medical Society and the State Association and had been carried on the official roster of both for many years, also a member of the Richland Baptist Church. Surviving him are his widow and one son, Dr. A. R. Sims, Richland. Rev. J. F. Funderburke conducted the funeral services from the home. Interment was in Harmony cemetery. Members of the Stewart-Webster Counties Medical Society formed an honorary escort.

*Dr. Richard Randolph Daly*, Atlanta; member; Columbia University College of Physicians and Surgeons, New York City, 1888; aged 72; was found dead near Emory University Campus on November 24, 1938. He was born at Seneca Falls. Dr. Daly entered service in the medical corps of the United States

Army as captain in July, 1917, and received an honorable discharge as major in December, 1919. Later he began private practice in Atlanta and remained in the work so far as his health would permit and was finally given a total disability rating by the Veterans' Administration of the United States Government. Dr. Daly requested that his body be buried in a government cemetery.

*Dr. Lemuel C. Kimberly*, Empire; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1890; aged 76; died of pneumonia on November 11, 1938. He practiced medicine in Dodge and surrounding counties for many years and was favorably known by hundreds of people. Dr. Kimberly enjoyed fishing and hunting. He was public spirited and one of the State's best citizens. He was a member of the Methodist church. Surviving him are one daughter, Mrs. L. R. Bullard, Gainesville, Fla.; two sons, Cliff Kimberly, Savannah, and Leo Kimberly, Eastman. Rev. Asbell of Cochran officiated at the funeral services. Burial was in Bower's cemetery at Empire.

*Dr. J. A. S. Chambers*, Inman; member; University of Georgia School of Medicine, Augusta, 1892; aged 79; died at his home on December 6, 1938. He was born in Clayton county. He practiced medicine for more than forty years and attended the birth of more than 2,000 infants. Dr. Chambers was held in high esteem by hundreds of acquaintances and had endeared himself to many patients. He was public spirited and always eager to promote the best interest of his community.

*Dr. James D. Middlebrooks*, Powder Springs; member; Emory University School of Medicine, Emory University, 1882; aged 77; died at his home on December 2, 1938 after an illness of several months duration. He was a native of Douglas county. His father was a surgeon in the Confederate Army during the Civil War. Dr. Middlebrooks had many warm personal friends. His ability to diagnose and treat pellagra was recognized by many of his fellow practitioners. With the exception of fourteen years practice in Texas, his professional work was devoted to efforts to relieve suffering humanity in and around his home. He practiced for more than fifty years. He was a leader in his community to promote the best interest of its people. Dr. Middlebrooks was a member of the Cobb County Medical Society and the Methodist church. Surviving him are his widow and one daughter, Mrs. James Comer, Decatur. Rev. O. L. Lindsey officiated at the funeral services conducted from the Methodist church. Burial was in Powder Springs cemetery.

*Dr. Thomas G. Cunningham*, Decatur; Atlanta College of Physicians and Surgeons, Atlanta, 1889; aged 66; died at his home on December 11, 1938. He was a native of Savannah. Dr. Cunningham practiced medicine in Atlanta and Decatur until he retired and was associated with Dr. Virgil C. Cooke. He limited his practice to diseases of the eye, ear, nose and throat. Dr. Cunningham was a successful practitioner and had many friends. He was a member of the Masonic Lodge and Presbyterian church. Surviving him are



three daughters, Mrs. W. A. Sharp; Misses Reba and Dorothy Cunningham; one brother and one sister. Dr. D. P. McGeachy officiated at the services conducted from Trinity chapel. Burial was in Decatur cemetery.

*Dr. Charles Hugh Wilcox*, Fitzgerald; member; Atlanta College of Physicians and Surgeons, Atlanta, 1901; died on May 18, 1938. He was a prominent physician and did a lot of charitable practice. Dr. Wilcox was public spirited and interested in all civic affairs for the betterment of his community.

*Dr. James C. Harris*, Oakfield; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1904; aged 56; died in a private hospital at Albany on December 5, 1938. He was a native of Henry county. Dr. Harris had many friends. He was a member of the Masons and Baptist church. Rev. R. L. Harvey and Rev. G. L. Griffin officiated at the services conducted from the Akin Funeral Home. Surviving him is one brother, Dr. V. L. Harris, Pinehurst. Burial was in Oakfield cemetery.

#### RESOLUTION ON THE DEATH OF DR. R. A. SIMPSON

Again death has invaded our ranks, removing from our society our friend and brother, Dr. Robert Alexander Simpson, whose death occurred at his home in Washington, Ga., on Sept. 24, 1938 after an illness of four months.

Dr. Simpson was born Feb. 1, 1859. His father was William Wingfield Simpson, a prominent planter, banker and merchant of Sparta, and his mother was Tabitha Jane Powell. Both parents were natives of Wilkes County, Georgia.

Dr. Simpson grew up in Sparta and attended private schools there until 1869, when his mother died. He then went to live with a sister in Atlanta where he attended school. In 1870 his father married again to Mrs. Lucy Willis DuBose of Wilkes county, where they made their home in Washington, Ga.; then Robert came to Washington to live with his parents in 1872.

He was prepared for college by private tutors and in 1873 entered the University of Georgia at Athens, being graduated with the A.B. degree in 1877. Among the first ten men in his class, he was one of the essayists in the commencement exercises of the year. The next year he went to Poughkeepsie, where he spent a year in a business college.

In 1879 he entered the University of Virginia, and was graduated in 1881 with an A.B. degree. In 1881 he entered the New York College of Physicians and Surgeons, which later became the medical department of Columbia University. He received his medical degree there in 1883, graduated with honors, and immediately began an internship in Bellevue Hospital.

Leaving there he went to Europe to study. In 1885 and 1886 he spent at the University of Heidelberg in Germany and in the clinics of Berlin and Vienna. In the fall of 1886 he returned to New York to become associated with and to have charge of the private hospital of Dr. Gil Wylie.

Dr. Simpson planned to make gynecology a specialty, and to practice in New York. He was now twenty-five years of age and as well equipped as the schools of America and Europe could qualify a man for this class of work. With this prospect before him he came to Washington just before Christmas in 1886 to spend the holidays with his father. He then realized that his father was old and feeble and that the remaining years of his life could be made happy by the presence of his only son.

He then returned to New York, closed his office and affairs in the spring of 1887, came to Washington and began the practice of medicine. For over fifty years he did an extensive practice in Washington and throughout Wilkes county, maintained the same office and lived in the home which was his father's.

Dr. Simpson never married, but was devoted to the practice of his profession. He was a man of artistic temperament, a finished musician and domestic in his tastes. He spoke and wrote German fluently, and was a man of intellect and ability. He was not given to show; he appeared best to those who knew him best, and there were hosts who loved him for his innate goodness and worth.

Whereas, Washington has lost one of her physicians who was loved and respected by many throughout the city and county.

Be It Resolved: That we extend to his relatives, our sincere sympathy in our mutual loss and that a copy of these resolutions be spread upon the minutes of this society, a copy sent to his nearest relative and a copy be sent to the Medical Association of Georgia and The News Reporter.

C. E. WILLS, M.D.,

H. T. HARRISS, M.D.,

*Committee.*

#### RESOLUTION ON THE DEATH OF DR. JAS. D. MIDDLEBROOKS

On December 2, 1938, Dr. James D. Middlebrooks died at his home in Powder Springs, Georgia, after being in ill health for several months. In his passing we have lost one who has honored our profession for 56 years.

Dr. Middlebrooks was loved and honored by all his patients and his fellow colleagues with whom he was associated. He was a successful practitioner and has endeared himself to hundreds of friends throughout the county; always willing to respond to those who were sick and needed attention.

Dr. Middlebrooks was an active member of the Cobb County Medical Society and of the Medical Association of Georgia and had served his society as president several times.

Dr. Middlebrooks was born near Douglasville, Ga., September 18, 1861; son of the late John Middlebrooks, Civil War surgeon, and Mrs. Rosa Stuart Middlebrooks of Douglasville, Ga. After graduation from Emory University School of Medicine in 1882, he began practice in Powder Springs, but moved to Texas in 1887 where he practiced for 14 years. Later he returned to Powder Springs where he continued his

work until last year when ill health forced him to retire.

He was a community leader and member of the Methodist church. His only son, Lieutenant John R. Middlebrooks, a young naval surgeon, died in 1921.

Dr. Middlebrooks is survived by his wife; one daughter, Mrs. James Comer, of Decatur, Ga.; and four grandsons. Funeral services were held December 4, 1938 at Powder Springs Methodist church, with Rev. W. O. Lindsey officiating.

Be It Resolved: That the Cobb County Medical Society in this memorial to our colleague who was faithful to his and our profession, express our deep sense of loss, and that this resolution be placed in the minutes of our society, that copies be sent to the Medical Association of Georgia, local newspapers and his family.

R. W. FOWLER, M.D.,  
J. E. LESTER, M.D.,  
M. M. HAGOOD, M.D.,  
*Chairman.*

#### RESOLUTIONS ON THE DEATH OF DR. HARRIS M. BRANHAM

Whereas, It has pleased Divine Providence to remove from this life our good friend and distinguished colleague, Dr. H. M. Branham, of Brunswick, Ga., and,

Whereas, We feel that his death has been a distinct loss not only to his community which he served so long and faithfully but to the Medical and Surgical Staff, Ware County Hospital, therefore,

Be It Resolved: That the medical and surgical staff, Ware County Hospital, express to his bereaved family its sincere sorrow and regret of his passing.

Be It Further Resolved: That copies of these resolutions be sent to Mrs. H. M. Branham, Miss Helen Branham, Waycross Journal-Herald, the Brunswick News, the Brunswick Pilot, and the *Journal of the Medical Association of Georgia*.

MEDICAL & SURGICAL STAFF  
WARE COUNTY HOSPITAL

W. D. MIXSON, M.D., *Pres.*  
L. W. PIERCE, M.D., *Secy.*

#### PROMOTIONS AND APPOINTMENTS AT GEORGIA

The following promotions and appointments at the University of Georgia School of Medicine, Augusta, for the session 1938-1939 have been announced:

##### Promotions:

Dr. Frederick A. Mettler to professor of gross anatomy.

Dr. Edward S. Cardwell, Jr., to assistant professor of pathology.

Robert B. Dienst, Ph.D., to associate professor of bacteriology and public health.

Dr. Hervey M. Cleckley to professor of psychiatry.

Dr. Meinhard Robinow to instructor in pediatrics.

Dr. John H. Sherman to professor of surgery.

Dr. Richard F. Slaughter to professor of neurosurgery.

Dr. Lucius N. Todd to professor of tuberculosis.

Dr. Perry P. Volpitto to professor of anesthesia.

Dr. Richard B. Weeks to assistant professor of clinical surgery.

##### Appointments:

Dr. Solomon Tanenbaum to assistant in clinical medicine.

Cecilia C. Mettler, Ph.D., to instructor in medical history.

— *Journal of the A. M. A.*, Chicago, Dec. 24, 1938.

#### BOOK REVIEWS

*Babies Are Human Beings*—C. Anderson Aldrich, M.D., Associate Professor of Pediatrics, Northwestern University Medical School, and Mary M. Aldrich, New York, London, and Toronto. The MacMillan Company, 1938.

The object of this delightful little book is to convince doctors, parents, and nurses that babies really have dynamic personalities. It accomplishes this object by its free and easy style and by the adequateness with which the subject is presented. Besides awakening in one a new comprehension of the baby and his problems, it is full of information about the developmental stages of the infant. It is an excellent book to recommend to the proud parents of a new born babe, for it will give them a new conception of the baby and its development into the preschool child.

*Guiding Human Misfits*—Alexandra Adler, Research Fellow in Neurology, Harvard University, Assistant in Research, Boston City Hospital, New York, London, and Toronto: The MacMillan Company, 1938.

Alexandra Adler has carried on her father's (Alfred Adler) work in individual psychology. Her book is written along those lines, and its style is simple and forceful. The reviewer feels that her major tenets are adequately illustrated by cases, but that she does not go into sufficient detail as to her technic of treatment of those cases. Such detail would have made the book far better. The most valuable part of the book is the list of questions at the back which will be of value in the taking of an adequate history when one is confronted with a human misfit.

*Dr. Colwell's Daily Log for Physicians*. For the doctor who desires a compact, well bound record of his daily financial transactions this book is recommended. It simplifies bookkeeping and at the same time sacrifices no worthwhile details. There is a space for every item, both debit and credit, and in addition there are sheets for monthly summaries and finally the annual summary.

The business affairs of a doctor are kept up-to-date if this book is used and the matter of making up the income tax return is done with accuracy and a minimum amount of work.

The book covers are of strong embossed fabrikoid. It is attractive in appearance and convenient in size. Eight and one-half by ten inches and one inch thick. The pages are loose-leaf style of fine bond paper. The price is \$6.00 complete. It may be had from the Colwell Publishing Company, Champaign, Illinois.

ED. H. GREENE, M.D.

*Vitamin B<sub>1</sub> (Thiamin) and Its Use in Medicine*, by Robert R. Williams and Tom D. Spies. New York, The Macmillan Company, 1938. 411 pages. \$5.00. The foreword by Dr. James S. Mc Lester emphasizes the importance of this book, calling attention to the fact that the senior author determined the structure of and then synthesized thiamin.

It is difficult to review the book because of its vast scope. It is at once a reference work for the clinician and the chemist, a medical history of beriberi and other Vitamin B<sub>1</sub> deficiencies and a guide to the therapeutic applications of Vitamin B<sub>1</sub>. The problems of nutrition cannot be considered except in reference to the content of this complete work.

In addition to beriberi, the clinician is brought to the consideration of epidemic dropsy, hunger edema, the neuritis of alcoholism, of pregnancy, of Korsakoff's syndrome and of diabetes and to general and specific considerations of the alimentary tract, the cardiovascular system and the nervous system in their relations to Vitamin B<sub>1</sub>. The nutritional problems of all wasting diseases, of pernicious anemia, sprue, pellagra, etc., demand consideration as well as such pathological states as colitis and malnutrition.

A book which can induce in the reader that feeling of satisfaction which one derives from the realization that he is, at least temporarily, up to date on one vitamin, is worthy of ownership.

HAROLD BOWCOCK, M.D.

#### WALKER-CATOOSA COUNTIES MEDICAL SOCIETY

The regular monthly meeting of the Walker-Catoosa-Dade Medical Society was held at the home of Dr. Charles Stephenson at Ringgold. Mrs. Stephenson served a delightful dinner. Members enjoying the hospitality of Dr. and Mrs. Stephenson were: Drs. Simon-ton, Shepard, and Hammond.

Dr. Carl Hartung of Chattanooga was the guest speaker. He read a paper on coronary artery disease, stating that of 5,000 autopsies at the Mayo Clinic, 28 per cent showed disease of the coronary arteries. Dr. Hartung said that between 50 and 60 is the most dangerous decade; mortality lessens after 60.

Coronary artery disease was found most frequently in the male. Very seldom were symptoms of rheumatism or syphilis found. Hypertrophy, diabetes, and nephritis were often found in cases of coronary artery disease, but usually coronary thrombosis was found in hypertension.

Those present enjoyed Dr. Hartung's paper very much. The Society was asked to meet with Dr. B. C. Hale in December.

RICHARD C. SHEPARD, M.D.

#### NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

From the unusual number of inquiries as well as enrollments which have been received at this early date, the impression is gained that the third annual New Orleans Graduate Medical Assembly, which will be

held from February 6 to 9, 1939, at the Roosevelt Hotel, will be the largest from the standpoint of attendance. It is also especially significant that a very considerable number of the inquiries have come from those who have attended previously. This has been especially gratifying to the sponsors of this intensive refresher course, because it indicates that the previous programs have supplied just what the busy practitioner has so long felt that he needed most.

The success of the previous assemblies has been an inspiration to introduce additional features, and this year eighteen physicians, each one an outstanding leader in his special field, will contribute one of the best planned courses yet attempted. The guest speakers who have been chosen are as follows:

Dr. Harry J. Shields, Toronto, Anesthesia and Gas Therapy.

Dr. N. C. Gilbert, Chicago, Cardiology.

Dr. Clinton Welsh Lane, St. Louis, Dermatology.

Dr. Chester M. Jones, Boston, Gastro-Enterology.

Dr. James C. Masson, Rochester, Gynecology.

Dr. Paul H. Ringer, Asheville, Medicine.

Dr. Cyrus C. Sturgis, Ann Arbor, Medicine.

Dr. Franklin C. Ebaugh, Denver, Neuropsychiatry.

Dr. M. Edward Davis, Chicago, Obstetrics.

Dr. Harry S. Gradle, Chicago, Ophthalmology.

Dr. A. Bruce Gill, Philadelphia, Orthopedics.

Dr. William P. Wherry, Omaha, Otolaryngology.

Dr. Wiley D. Forbus, Durham, Pathology.

Dr. Frederick F. Tisdall, Toronto, Pediatrics.

Dr. Arthur U. Desjardins, Rochester, Radiology.

Dr. C. Gordon Heyd, New York City, Surgery.

Dr. I. S. Ravdin, Philadelphia, Surgery.

Dr. Robert Herbst, Chicago, Urology.

Each one of these nationally and internationally famous authorities will contribute liberally to the program and will be available for informal discussions of the problems of those who attend.

A small registration fee of \$10.00, which covers all of the features, including four roundtable lunches as well as the smoker, makes it possible to enjoy four full days of medical education, combined with recreation in the interesting city of New Orleans. Ample provision will be made for the entertainment of the ladies. A postal card addressed to the New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, New Orleans, will bring especially interesting information concerning the program as well as other attractions.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

The Elbert County Medical Society held a tuberculosis clinic in Elberton on January 9.



**"BENZEDRINE"**

There appears to have been some natural confusion in regard to the proper nomenclature of the new chemical compound for which "Benzedrine" is the trade-mark or proprietary name of Smith, Kline & French Laboratories.

To clear up this confusion, the Council on Pharmacy and Chemistry of the American Medical Association last summer adopted *a-methyl-phenethylamine* as the descriptive chemical name for the substance and *amphetamine* as its shortened non-proprietary synonym.

If, therefore, you should have occasion to mention "Benzedrine" or "Benzedrine Sulfate" in your publication, we would esteem it a favor if you would capitalize the initial letter of "Benzedrine" and follow it with "amphetamine" or "amphetamine sulfate" in parentheses. Examples of this usage would read as follows:

"Benzedrine (amphetamine) has been widely discussed . . . etc."

"Benzedrine Sulfate (amphetamine sulfate) has shown promising results in the treatment of . . . etc."

We feel that this procedure will go far to eliminate any confusion concerning the proper nomenclature for the compound. We should very much appreciate your cooperation.

**AMYTAL (ISO-AMYL ETHYL BARBITURIC ACID, LILLY)**

Analgesia of a sort was known to a few practitioners of medicine as early as the third century. It is said that Hoa-tho, a physician of the times, eased the pain of operative procedures by administering a preparation of hemp to his patients.

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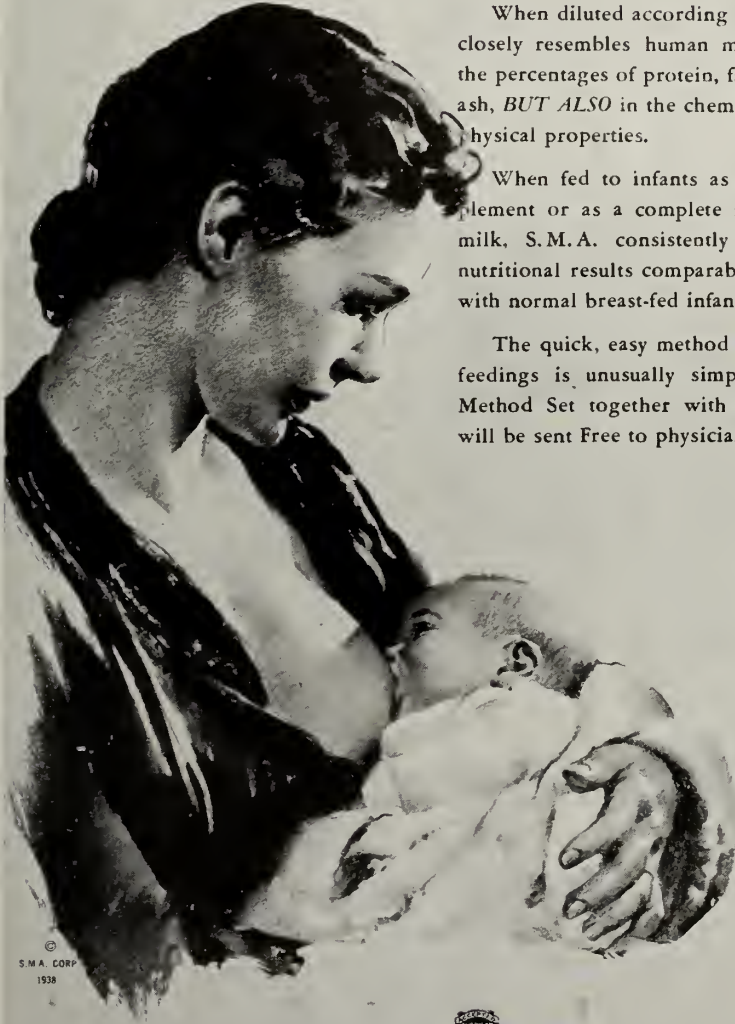
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### CRYSTALLINE INSULIN\*

MELVILLE SAHYUN, PH.D.

Detroit, Mich.

Progress in scientific research complicates rather than simplifies our problems. After the discovery of insulin by Banting and Best in 1922, the problem of the treatment of the diabetic was thought to be simpler in our minds than the same problem fifteen years hence.

In 1925 the late Professor Abel<sup>1</sup> announced the isolation of insulin in a crystalline state. Attempts to separate from insulin or crystalline insulin a more potent fraction of a smaller molecular size failed. Subsequent work has confirmed Abel's findings. It is thus apparent that crystalline insulin is a chemical entity, possesses the characteristics of a protein and represents the anti-diabetic hormone of the pancreas in its purest state. The potency of crystalline insulin has been set at 22 International Units and in this connection we read in the League of Nations Quarterly Bulletin of the Health Organization: "It seems safe to assume, indeed, that the value now accepted for the unit of insulin in terms of the new standard will be final and permanent, in that it will not be subject to any further uncertainty, or any further possibility of even a fractional change, if it be necessary to replace the present standard preparation by another quantity of similarly purified insulin."<sup>†</sup> In view of this, the members of the committee of the International Conference of Experts decided by majority vote to recommend for adoption the definition of the *unit* of insulin as "*the specific activity*

of one twenty-second part of a milligramme of the New Standard preparation."<sup>‡</sup>

*Zinc and Crystalline Insulin:* When the late Professor Abel isolated insulin in a crystalline state it was termed "Crystalline Insulin." Subsequently Scott<sup>2</sup> made the interesting observation that zinc, cobalt, nickel or cadmium is useful for the crystallization of insulin. In all probability the metal used in effecting crystallization of insulin becomes chemically bound to the insulin molecule.<sup>3</sup> Zinc has since then been widely used for the preparation of insulin crystals in preference to other metals. The probable amount of zinc that is chemically combined with insulin is about 0.4 per cent per dry weight or 0.02 mg. zinc per 100 units of insulin. In the preparation now commercially available and termed "Solution of Zinc-Insulin Crystals" the amount of zinc has been specified at 0.02 to 0.04 mg. zinc per 100 units of insulin. In order to satisfy ourselves that a diabetic does not receive an excessive amount of zinc from zinc-insulin crystals if he administers all his insulin as "Solution of Zinc-Insulin Crystals," the following table is presented based on the assumption that the maximum amount of zinc (0.04 mg. zinc per 100 units insulin) is present.

Daily Dose Units	AMOUNT OF ZINC ADMINISTERED			
	1 month mg.	1 year mg.	10 years mg.	50 years mg.
25	0.3	3.65	36.5	182.5
40	0.48	5.84	58.4	292.0
50	0.6	7.3	73.0	365.0

Could such an amount of zinc have any deleterious effect on the system? Weitzel<sup>4</sup> and later Rost and Weitzel<sup>5</sup> reported that the normal individual excretes daily from 0.6 to 1.6 mg. zinc through the urine and from 3 to 19 mg. zinc through the feces. Batchelor, Fehnel, Thomson and Drinker<sup>6</sup> studied the daily excretion of zinc in zinc workmen and reported figures for both urine and feces approximating 1.75 mg. and 19.5 mg. respec-

\*From the Biochemical Research Laboratory of Frederick Stearns and Company, Detroit, Mich.

<sup>†</sup>League of Nations Quarterly Bulletin of the Health Organization Biological Standardization II, Special Number, November, 1936, page 586.

<sup>‡</sup>Note: Throughout this manuscript the terms *crystalline insulin* and *solution of zinc-insulin crystals* have been used interchangeably.

<sup>‡</sup>*Ibid.*, page 657.

tively. Fairhall<sup>7</sup> studied the daily fecal excretion of an individual for a period of three weeks and his findings were in agreement with the above mentioned figures. However, he also found that after a meal rich in zinc, such as oysters, the daily fecal excretion was as high as 69.8 mg. zinc. Drinker, Fehnel and Marsh<sup>8</sup> investigated the daily output of zinc in the urine and feces of two healthy individuals and reported that after the ingestion of food rich in zinc the daily excretion of zinc was as high as 198 mg., while in the normal individual the urinary zinc output was from 0.256 to 2 mg. daily and the fecal zinc output was from 3 to about 20 mg. daily.

Heller and Burke<sup>9</sup> reported that zinc added to a normal ration either in the form of pure zinc, zinc oxide or certain zinc salts in amounts as great as ever found in contaminated foods did not interfere with growth, reproduction or normal function of the rat through three generations, furthermore that no pathologic conditions were found in the organs of such rats. Thus the maximum amounts of zinc that a diabetic receiving daily 25, 40 or 50 units of zinc-insulin crystals would receive in his system at the end of one year would be 3.65 mg., 5.84 mg., and 7.3 mg., respectively. Such amounts are indeed insignificant.

*The Treatment of Diabetes with Crystalline Insulin:* From the time when Abel isolated crystals of insulin in 1925 until 1935 when the author undertook its preparation on a large scale, crystalline insulin was used chiefly for chemical research and for the treatment of certain allergic patients but was not thought to possess any clinical advantages over the types available. The physician could not be blamed for his lack of interest in a product that was not readily available and for which the diabetic might have had to pay a prohibitive price. Moreover it was thought that on account of the purity of crystalline insulin its solutions would be unstable and its hypoglycemic effect of short duration.

Howard and de Lawder<sup>10</sup> in 1933 were first to investigate the therapeutic effects of Abel's crystalline insulin, and compare its action with that of a commercial preparation of equal potency. They conducted their in-

vestigation on four diabetic patients only. It is interesting to note that in three of these patients Howard and de Lawder observed that with crystalline insulin the blood sugar curves tended to be at lower levels toward the end of the period of observation and that on the fourth patient they had to reduce the dose by two units on account of mild midday reactions. It is very unfortunate that these investigators did not proceed further with this problem.

In 1935 the writer undertook the preparation of a large amount of crystalline insulin for therapeutic purposes. In investigating some of its physicochemical aspects, he observed a striking difference in solubility in aqueous solution between the crystals and amorphous insulin. In view of this he concluded that the rate of absorption of a solution of crystalline insulin in the body would be slower and more prolonged than that of unmodified insulin. It became imperative that thorough clinical studies be made in order to determine if solutions of this preparation would indeed be more slowly absorbed and its hypoglycemic effect be more prolonged than unmodified insulin. Freund and Adler<sup>11</sup> reported that the action of solutions of crystalline insulin on blood sugar of diabetics lasts for a period of from eight to nine hours and returns slowly to its normal level; further that the doses and amounts of insulin required to control the blood sugar level are reduced as compared with those of unmodified insulin. Altshuler and Leiser<sup>12</sup> studied its action on both diabetic and non-diabetic patients. Its action in the non-diabetic individual was observed to last about fourteen hours while in the diabetic a gradual and prolonged effect was noted. They also observed that by its use they obtained better controlled blood sugar curves than with unmodified insulin and with fewer injections and a smaller number of units. Mains and McMullen<sup>13</sup> investigated its action in twenty-two cases of diabetes and observed that it possessed a delayed onset and prolongation of hypoglycemic action. They also concluded that in some instances one daily large dose of crystalline insulin may adequately control the blood sugar of patients requiring two or more doses of unmodified insulin daily and maintain the patients glycosuria. Wilder<sup>14</sup> and

Wilder and Wilbur<sup>15</sup> investigated the duration of action of solution of zinc-insulin crystals and reported it to extend from twelve to fourteen hours in patients receiving food. Feinblatt and Ferguson<sup>16</sup> studied its action on eleven diabetic patients and their results were in essential agreement with those of Freund and Adler.<sup>11</sup> Barach<sup>17</sup> confirmed the retardation and prolongation of action of crystalline insulin and summarized its advantages over unmodified insulin as follows: (1) a gradual blood sugar lowering effect over a long period of time, (2) a reduction in the incidence of insulin reactions and insulin shock, both of which are troublesome and dangerous to the patient and, (3) a reduction in the number of doses of insulin and the number of units given daily. In addition he stated: "Crystalline insulin offers all of the advantages of the present day modification of standard insulin and thus far we have encountered none of the disadvantages." Allen<sup>18</sup> reported that it is the best means for maintaining normal control of difficult cases of diabetes and that it possesses a predictable, uniform course of action. He expressed the opinion that while control of diabetes of any considerable severity cannot be achieved with one dose in twenty-four hours such control can ordinarily be secured with two doses. Bowcock and Wilkinson<sup>19</sup> began their investigative work on crystalline insulin as early as 1936. These investigators concluded that it has a duration of activity of twelve hours or longer; also that by its use one may secure good control of diabetes with one injection. Perkin and Meyers<sup>20</sup> investigated the action of crystalline insulin and were unable to observe any prolongation of effect. Later, however, Meyers in a private communication informed the author that he has since observed prolongation of action following the administration of solution of zinc-insulin crystals.

Prior to these investigations it had been shown by numerous investigators that the addition of zinc to hormones such as insulin causes an augmentation of their effects. Thus Rabinowitch and coworkers<sup>21</sup> investigated the prolongation of action of zinc-insulin crystals and attributed its augmentative effect to the presence of zinc. Had their analytical findings for the zinc present been correct, their reasoning would have been justified but

on their samples which had been made from one dilution and one lot of zinc-insulin crystals, they reported different values ranging from 0.88 to 2.4 mg. zinc per 1,000 units. Analyses made in this laboratory and elsewhere had previously established the zinc content of this particular preparation at 0.8 to 0.9 mg. per 1,000 units. Theoretically the amount of zinc that is assumed to be bound to the insulin molecule is about 0.2 mg. per 1,000 units. Later the zinc content of the earlier preparations was reduced to a value more closely approximating the theoretical.

Clinical investigations were begun on the new standardized preparation containing about 0.2 mg. zinc per 1,000 units. Once more Altshuler and Leiser<sup>22</sup> undertook the task of comparing clinically four different preparations of insulin which had been biologically assayed: (1) unmodified insulin, (2) unmodified insulin to which 1 mg. zinc per 1,000 units had been added, (3) solution of zinc-insulin crystals containing 0.9 mg. zinc per 1,000 units, and (4) solution of zinc-insulin crystals containing 0.25 mg. zinc per 1,000 units. Their results showed that the prolongation of action of zinc-insulin crystals with as little as 0.25 mg. zinc per 1,000 units was at least equal to that of the preparation containing 0.9 mg. zinc per 1,000 units; moreover, unmodified insulin to which 1 mg. zinc per 1,000 units had been added had no greater prolongation of hypoglycemic action than the parent material without added zinc. Several other clinical investigations<sup>23-28</sup> using zinc-insulin crystals confirmed the prolongation of its action. It is therefore highly improbable that the prolongation of action of zinc-insulin crystals can be attributed to the small amount of zinc it contains.

Recently Altshuler and Leiser<sup>29</sup> reported on the use of solution of zinc-insulin crystals of low zinc content (0.03 mg. zinc per 100 units) prepared by the author in the treatment of 150 diabetic patients and concluded that: (1) severe diabetes can be well controlled by the use of one or two doses daily, (2) the treatment of diabetes with this preparation is very simple, requiring no unusual arrangement of the diet or insulin dosage. The change from unmodified to crystalline insulin can be very easily accomplished, (3) because of the purity of the product this



preparation is particularly suitable for the use of persons subject to allergic manifestations and, (4) the incidence of hypoglycemic reactions is less frequent and of milder severity with crystalline insulin than with unmodified insulin. Shepardson and Freidlander<sup>30</sup> compared the actions of unmodified, crystalline and protamine zinc insulin in fifty-two diabetic patients chosen at random and classified as having severe, moderately severe or mild diabetes. They reported that after satisfactory periods of observations under unmodified insulin therapy a definite reduction in the average total daily dosage occurred after the change over to long-acting insulins. This reduction was greatest among those patients transferred to solution of zinc-insulin crystals. A definite reduction in the average number of daily injections likewise followed the use of long-acting insulins with better control of the diabetes among patients who received crystalline insulin, particularly among patients with severe and moderately severe diabetes. Improvement in the control of diabetes was most outstanding in patients with severe diabetes after they had been changed over to crystalline insulin.†

COMMENT: A recent number of this *Journal* contained an article\* dealing with the clinical activity of solution of zinc-insulin crystals. Subsequent comment made it apparent that the medical profession, even among those members who have an interest in the management of diabetes, was to a measure, uninformed about the new preparation, its availability, the history of its origin and its clinical usefulness. It was thought that Dr. Melville Sahyun might be the one most capable of furnishing the requisite information about the characteristics of this preparation since his investigative efforts were responsible for its commercial availability.

HAROLD BOWCOCK, M.D.

\*Bowcock, H., and Wilkinson, C.: Solution of Zinc-Insulin Crystals versus Regular Insulin and Protamine Zinc Insulin. *J. Med. Assoc. Ga.*, 27:351 (Sept.) 1938.

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- Altshuler, S. S., and Leiser, R.: The Use of Crystalline Insulin in the Treatment of Patients with Severe Diabetes. *J. Mich. State Med. Soc.*, (November) 1938.
- Shepardson, H. Clare, and Friedlander, Richard D.: Clinical Experiences with Long-Acting Insulin in Ambulatory Diabetic Patients. *Ann. Int. Med.*, 12:830 (December) 1938.

#### CALIFORNIA APPROVES PLAN FOR MEDICAL CARE

At a special meeting of the House of Delegates of the California Medical Association in Los Angeles Dec. 17 a plan to provide medical care to residents of the state at a cost of about \$2.50 a month was approved. *The Journal of the American Medical Association* for Dec. 24 reports.

According to the *New York Times*, patients will select their own doctors and hospitals. Payments will be made on a weekly, monthly or semimonthly basis. Physicians will be paid on a unit basis, the payments graded from single units for minor services to twenty-five or more units for major operations. It is expected to take about six or eight months to put the plan into operation. While the exact cost has not been determined, the estimate is \$2.50 a month for each person. No provision for family group insurance was made under the revised final plan. Hospital, medical and surgical attention will be provided and the expense may be lower if 500,000 or more persons participate in the plan.

The Medical Association of Georgia will hold its ninetieth annual session at the Biltmore Hotel, Atlanta, April 25-28, 1939. The Fulton County Medical Society extends you a most cordial invitation.

# GEORGIA DEGREED PHYSICIANS PREVIOUS TO 1830\*

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During the late eighteenth and early nineteenth centuries the majority of practicing physicians in Georgia, like their contemporaries in other states, received their medical training under the apprentice system. More specifically these men apprenticed themselves to a presumably reputable physician for a period of three years. A fee was usually paid albeit the young man immediately assumed the responsibility for all the odd duties connected with the preceptor's office and practice. In return for his financial investment and labor the prospective physician had the opportunity to observe and to assist the doctor and to use his medical library. If the preceptor were an intelligent, active man who kept abreast of medical advancement such a course could be enlightening; however, gen-

erally speaking the amount of knowledge acquired depended to a large extent on the initiative, eagerness, alertness and curiosity of the student.

A small number of physicians, the group considered below, studied medicine at one of the university medical colleges. One naturally expects to find an increase in the number of Georgia physicians with degrees following the establishment of a college in their state but it is interesting to find that, previous to the founding of the first medical school in Georgia, 127 men were graduated as physicians from American colleges.

The list which follows has been composed in most instances from graduation announcements published in the medical journals and newspapers of the day and checked, with the exceptions of those of Transylvania University and Columbia University, with records in the registrar's office of each university in question.\* The criterion used in selecting the following physicians was based upon the student's acknowledged residence at the time of graduation. Thus it is possible that the list may be incomplete since it is probable that native Georgians may have moved temporarily to the city in which they wished to study.

\*The writer wishes to thank the registrars of the Universities of Dartmouth, Harvard, George Washington, Maryland, New York, Pennsylvania, and South Carolina for their letters listing Georgians receiving doctor's degrees.

<i>Name</i>	<i>Date</i>	<i>University</i>	<i>Thesis</i>
Bailey, Stephen,	1828:	University of Pennsylvania	Mercury <sup>1</sup>
Baker, Joseph S.,	1828:	Columbian College	Inflammation <sup>2</sup>
Baldwin, Augustus,	1826:	University of South Carolina	Venae Sectio <sup>3</sup>
Ball, William B.,	1826:	University of South Carolina	Medical Topography of Georgia <sup>4</sup>
Banks, Richard,	1821:	University of Pennsylvania	Hydrocele <sup>5</sup>
Beddingfield, B.,	1829:	University of South Carolina	Cynanche Trachealis <sup>6</sup>
Berrien, Richard M.,	1818:	University of Pennsylvania	Mania a potu <sup>7</sup>
Bibb, William Wyatt,	1802:	University of Pennsylvania	Inquiry into the Modus Operandi of Medicines upon the Human Body <sup>8</sup>
Bird, Fitzgerald,	1822:	University of Pennsylvania	Sanguinaria Canadensis <sup>9</sup>
Bond, Edward H.,	1829:	University of South Carolina	Dysentery <sup>10</sup>
Boykin, Samuel,	1810:	University of Pennsylvania	Scarlatina and Angina Maligna <sup>11</sup>
Brux, Edward,	1813:	University of Pennsylvania	Deleterious Gases <sup>12</sup>
Buchanan, Wm. F.,	1820:	University of Pennsylvania	Acute Rheumatism <sup>13</sup>
Bush, G. B. L.,	1819:	University of Pennsylvania	Asclepias Syriaca <sup>14</sup>
Carter, John,	1817:	University of Pennsylvania	Cynanche Trachealis <sup>15</sup>
Casey, John A.,	1814:	University of Pennsylvania	(No thesis listed) <sup>16</sup>
Charlton, Thomas J.,	1828:	University of Pennsylvania	Melancholia and Hypochondriasis <sup>17</sup>
Collins, Wm. A. L.,	1821:	College of Phys. & Surgeons	Aneurism <sup>18</sup>
Cone, H. H.,	1826:	University of South Carolina	Hydrocephalus <sup>19</sup>
Connor, Paul W.,	1826:	University of South Carolina	Hepatitis <sup>20</sup>
Cocke, William,	1798:	University of Pennsylvania	Tetanus <sup>21</sup>
Cooke, John,	1805:	University of Pennsylvania	Jaundice <sup>22</sup>
Coppee, Ed.,	1826:	University of South Carolina	Leucorrhoea <sup>23</sup>
Cox, Swepson,	1810:	University of Pennsylvania	Animal Heat <sup>24</sup>
Crawford, R.,	1826:	University of South Carolina	Indigestion <sup>25</sup>
Cuckow, W. H.,	1826:	University of South Carolina	Cholera <sup>26</sup>

Cunningham, Alex.,	1816:	University of Pennsylvania	Intermitting and Remitting Fever <sup>27</sup>
Cuyler, Wm. H.,	1817:	University of Pennsylvania	Tetanus <sup>28</sup>
Daniel, Wm. C.,	1815:	University of Pennsylvania	Structure of Placenta <sup>29</sup>
Dempree, Elijah,	1827:	University of Pennsylvania	Functional Derangements of the Liver <sup>30</sup>
Dent, John,	1814:	University of Pennsylvania	(No thesis listed) <sup>31</sup>
Dickinson, Roger Q.,	1826:	University of Pennsylvania	Disease of the Spleen <sup>32</sup>
Dugas, Louis A.,	1827:	University of Maryland	Nephritis <sup>33</sup>
Eve., J. A.,	1827:	University of South Carolina	Miasmatic Disease <sup>34</sup>
Eve, P. F.,	1828:	University of Pennsylvania	Uterine Hemorrhage <sup>35</sup>
Forbes, Clement,	1827:	University of South Carolina	Cynanche Trachealis <sup>36</sup>
Galpin, Milledge,	1816:	University of Pennsylvania	Sesamun or Benue <sup>37</sup>
Garvin, I. P.,	1826:	University of South Carolina	(No thesis listed) <sup>38</sup>
Garvin, J. P.,	1825:	University of South Carolina	Cholera Infantum <sup>39</sup>
Gignilliat, Charles,	1813:	University of Pennsylvania	Combustion <sup>40</sup>
Greene, Willis,	1823:	University of Pennsylvania	Hydrocephalus <sup>41</sup>
Greenwood, Caleb B.,	1825:	Columbian College	Digitalis Purpera <sup>42</sup>
Grimes, Joseph W.,	1824:	University of Pennsylvania	Bilious Continued Fever of Georgia <sup>43</sup>
Grosvenor, Ebenezer C.,	1816:	Harvard University	Lumbar Abscess <sup>44</sup>
Hamilton, Thomas,	1820:	University of Pennsylvania	Cholera Infantum <sup>45</sup>
Hart, William P.,	1824:	University of Pennsylvania	Diabetes Mellitus <sup>46</sup>
Hay, James T.,	1824:	University of Pennsylvania	Bilious Fever <sup>47</sup>
Holmes, James,	1825:	University of Pennsylvania	Physiognomy of Disease <sup>48</sup>
Holt, David,	1819:	University of Pennsylvania	Nourishment of the Foetus in Utero <sup>49</sup>
Hook, B. M.,	1819:	University of Maryland	(No thesis listed) <sup>50</sup>
Hook, Daniel,	1819:	University of Maryland	Materia Medica <sup>51</sup>
Hook, Daniel,	1820:	University of Maryland	Materia Medica <sup>52</sup>
		(Doctor of Physic degree)	
Howard, A. G.,	1827:	University of South Carolina	Syphilis <sup>53</sup>
Hubbard, Hopson M.,	1826:	University of Pennsylvania	Music as applicable to Disease <sup>54</sup>
Hughes, Ed.,	1826:	University of Pennsylvania	Cynanche Trachealis <sup>55</sup>
Ingram, Thomas W.,	1829:	University of Pennsylvania	Sanguiferous Circulation <sup>56</sup>
Irwin, Jared,	1809:	University of Pennsylvania	Tetanus <sup>57</sup>
Jackson, Henry,	1803:	University of Pennsylvania	Efficacy of External Application <sup>58</sup>
James, Thomas J.,	1818:	University of Pennsylvania	Arthritis <sup>59</sup>
Jones, Alexander,	1822:	University of Pennsylvania	Melia Azedarach <sup>60</sup>
Jones, Wm. S.,	1826:	University of Pennsylvania	Acute Peritonitis <sup>61</sup>
Jordan, John,	1822:	University of Pennsylvania	Dyspepsia <sup>62</sup>
Kollock, Phineas M.,	1826:	University of Pennsylvania	Mania a potu <sup>63</sup>
Lamar, Thomas L.,	1821:	College of Phys. & Surgeons	Uterine Hemorrhage <sup>64</sup>
Law, John S.,	1825:	University of Pennsylvania	Picnkeya Rubescens <sup>65</sup>
Lawton, Elijah L.,	1809:	University of Pennsylvania	Ailment <sup>66</sup>
Lockett, Cullen,	1821:	University of Pennsylvania	Hepatitis <sup>67</sup>
Macon, Henry J.,	1827:	University of Pennsylvania	Properties of Cold Water <sup>68</sup>
Meigs, Charles D.,	1817:	University of Pennsylvania	Prolapsus Uteri <sup>69</sup>
Mercer, Lecindas B.,	1825:	University of Pennsylvania	Intermittent Fever <sup>70</sup>
Minis, Philip,	1824:	University of Pennsylvania	Yellow Fever <sup>71</sup>
McCall, Edwin L.,	1806:	University of Pennsylvania	Mutual Subservience of Different Parts of the Body <sup>72</sup>
Newton, J. D.,	1826:	Charleston Medical College	Hydrocephalus Acutus <sup>73</sup>
Nicholson, Archibald,	1818:	New York University	Hepatitis <sup>74</sup>
Noble, Dearborn J.,	1825:	University of Transylvania	Influence of Lachrymal Gland on Brain and Passions and Upon the Eye in Disease. <sup>75</sup>
Oliver, Samuel C.,	1820:	University of Pennsylvania	Causes Preventing the Progress of Medical Science in the United States <sup>76</sup>
Owen, Augustine,	1829:	University of Pennsylvania	Acute Bronchitis <sup>77</sup>
Parks, Clarke D.,	1829:	University of Pennsylvania	Effects of Cold <sup>78</sup>
Parks, Hezekiah C.,	1825:	College of Phys. & Surgeons†	Blood Letting <sup>79</sup>
Peterson, James B.,	1824:	University of Pennsylvania	Leucorrhea <sup>80</sup>
Pope, John Hunter,	1808:	University of Pennsylvania	Vesiculae Seminales <sup>81</sup>
Pope, William H.,	1817:	University of Pennsylvania	Hydrophobia <sup>82</sup>
Postell, J. R.,	1826:	University of South Carolina	Parturition <sup>83</sup>
Rainey, Wm.,	1822:	University of Pennsylvania	Bilious Fever <sup>84</sup>



Randle, Lackington C.,	1820:	College of Phys. & Surgeons†	Blood Letting <sup>86</sup>
Randolph, Richard H.,	1819:	University of Pennsylvania	Bilious Remitting Fever of Georgia in 1817 <sup>86</sup>
Reese, David A.,	1819:	New York University	Emetics and Cathartics <sup>87</sup>
Reynolds, Reuben Y.,	1828:	University of Pennsylvania	Inversio Uteri <sup>88</sup>
Richardstone, C. P.,	1827:	University of South Carolina	Yellow Fever <sup>89</sup>
Riviere, Wm. L.,	1819:	New York University	Neuralgia <sup>90</sup>
Rogers, Wm. B.,	1820:	College of Phys. & Surgeons†	Diseases of Georgia <sup>91</sup>
Safold, Reuben S.,	1808:	University of Pennsylvania	Influence of Mind on Body in Producing Diseases and Death <sup>92</sup>
Sankey, Richard T.,	1827:	University of Pennsylvania	Debility <sup>93</sup>
Savage, William,	1826:	University of Maryland	(No thesis listed) <sup>94</sup>
Screven, James P.,	1820:	University of Pennsylvania	Hepatitis <sup>95</sup>
Sims, James S.,	1827:	University of Pennsylvania	Debility <sup>96</sup>
Smith, H. J.,	1827:	University of South Carolina	Pain <sup>97</sup>
Stephens, Thomas P. G.,	1825:	University of Pennsylvania	Antimonium Tartarizatum <sup>98</sup>
Sturge, Charles,	1826:	New York University	Topography, Climate and Disease of Burke County <sup>99</sup>
Swift, John D.,	1822:	University of Pennsylvania	Hemeralopia <sup>100</sup>
Symonds, Hugh,	1826:	Transylvania University	Philosophy and Treatment of Dislocation of the Hip Joint <sup>101</sup>
Taylor, J. W.,	1826:	University of South Carolina	Epilepsy <sup>102</sup>
Thornton, Hudson A.,	1823:	University of Pennsylvania	Marsh Miasmata <sup>103</sup>
Troup, James G.,	1809:	University of Pennsylvania	Conception <sup>104</sup>
Tuggle, Ransom,	1824:	University of Pennsylvania	Scilla Maritima <sup>105</sup>
Turner, Thomas B.,	1825:	New York University	Hydrocephalus <sup>106</sup>
Urquhart, James A.,	1828:	University of Pennsylvania	Dentition and Cholera Infantum <sup>107</sup>
Waddle, Wm. Woodson,	1828:	University of Pennsylvania	State of Biliary Secretion in Fever <sup>108</sup>
Walker, James B.,	1828:	University of Pennsylvania	Topography, Climate and Disease of Burke County <sup>109</sup>
Walkins, James F.,	1826:	University of Pennsylvania	Amenorrhoea <sup>110</sup>
Ward, Amos,	1827:	University of Pennsylvania	Fever <sup>111</sup>
Ware, Edward R.,	1828:	University of Pennsylvania	Effect of 8th Pair of Nerves on Respiration and Digestion <sup>112</sup>
Ware, George N.,	1827:	University of Pennsylvania	Cold Water <sup>113</sup>
Watkins, Claiborne A.,	1825:	University of Pennsylvania	Rubeola Vulgaris <sup>114</sup>
Wayne, W.,	1827:	University of South Carolina	Mania a Potu <sup>115</sup>
Weems, Walter H.,	1819:	University of Pennsylvania	Baptisia Tinctoria <sup>116</sup>
West, Charles,	1812:	University of Pennsylvania	(No thesis listed) <sup>117</sup>
White, Benjamin A.,	1815:	University of Pennsylvania	Inflammation <sup>118</sup>
Whitehead, James	1810:	University of Pennsylvania	Pneumonia vera <sup>119</sup>
Wiley, John B.,	1829:	University of Pennsylvania	Cold and Heat as Causes of Disease <sup>120</sup>
Wilkins, Paul H.,	1825:	University of Pennsylvania	Yellow Fever of Savannah <sup>121</sup>
Williams, James M.,	1825:	New York University	Laryngitis <sup>122</sup>
Williams, R. W.,	1827:	University of South Carolina	Prolapse Uteri <sup>123</sup>
Williamson, James E.,	1825:	University of Pennsylvania	Calomel <sup>124</sup>
Wilson, J. S.,	1829:	University of South Carolina	Ascites <sup>125</sup>
Wingfield, John L.,	1816:	University of Pennsylvania	Fractures <sup>126</sup>
Wright, Abednego,	1819:	University of Pennsylvania	Puerperal Fever <sup>127</sup>

The writer would appreciate further information of a biographical or professional nature concerning any of the above men or men who through oversight have not been included in the above list.

1. Am. J. M. Sc. 2:236, 1828.

2. Ibid, 239.

3. Med. Recorder 10:223, 1826.

4. Ibid.

5. Am. J. M. Phy. Sc. 2:207, 1821.

6. Am. J. M. Phy. Sc. 4:270, 1829.

7. Med. Recorder 1:311, 1818.

8. Med. Repository 5:82, 1802.

9. Med. Recorder 5:391, 1822.

10. Am. J. M. Sc. 4:270, 1829.

11. Med. and Philos. Register 1:32, 1810.

12. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.

13. Med. Recorder 3:293, 1820.

14. Med. Recorder 2:303, 1819.

15. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.

16. Ibid.

17. *Am. J. M. Sc.* 2:236, 1828.
  18. *Am. J. M. Sc.* 2:207, 1821.
  19. *Med. Recorder* 10:223, 1826.
  20. *Ibid.*
  21. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  22. *Med. Philos. Register* 2:73, 1805.
  23. *Med. Recorder* 10:223, 1826.
  24. *Med. Philos. Register*, N.S. 1:32, 1810.
  25. Registrar's Letter, University of South Carolina.
  26. *Med. Recorder* 10:223, 1826.
  27. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  28. *Ibid.*
  29. *Ibid.*
  30. *Phila. J. M. Sc.* 14:199, 1827.
  31. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  32. *Med. Recorder* 10:221, 1826.
  33. Registrar's Letter, University of Maryland.
  34. Registrar's Letter, University of South Carolina.
  35. *Am. J. M. Sc.* 2:236, 1828.
  36. Registrar's Letter, University of South Carolina.
  37. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  38. Letter, University of South Carolina Registrar.
  39. *Med. Recorder* 8:647, 1825.
  40. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  41. *Phila. J. M. and Phys. Sc.* 6:214, 1823.
  42. *Med. Recorder* 8:645, 1825.
  43. *Med. Recorder* 7:436, 1824.
  44. *New England J. Med.* 5:409, 1816.
  45. *Med. Recorder* 3:295, 1820.
  46. *Med. Recorder* 7:436, 1824.
  47. *Ibid.*
  48. *Med. Recorder* 8:643, 1825.
  49. *Med. Recorder* 2:303, 1819.
  50. Letter, University of Maryland Registrar.
  51. *Med. Recorder* 1:309, 1819.
  52. *Med. Recorder* 3:295, 1820.
  53. Letter, University of South Carolina Registrar.
  54. *Med. Recorder* 10:221, 1826.
  55. *Ibid.*
  56. *Am. J. M. Sc.* 4:265, 1829.
  57. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  58. *Med. Repository* 6:235, 1803.
  59. *Med. Recorder* 1:311, 1818.
  60. *Med. Recorder* 5:389, 1822.
  61. *Med. Recorder* 10:221, 1826.
  62. *Med. Recorder* 5:389, 1822.
  63. *Med. Recorder* 10:221, 1826.
  64. *Am. J. M. Phys. Sc.* 2:207, 1821.
  65. *Med. Recorder* 8:643, 1825.
  66. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  67. *Am. J. M. Phys. Sc.* 2:205, 1821.
  68. *Phila. J. M. Sc.* 14:199, 1827.
  69. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  70. *Med. Recorder* 8:643, 1825.
  71. *Med. Recorder* 7:436, 1824.
  72. *Med. Philos. Register* 3:241, 1806.
  73. *Med. Recorder* 10:223, 1826.
  74. *Med. Repository*, N. S. 4:320, 1818.
  75. *Med. Recorder* 8:647, 1825.
- †These men are listed by the *Medical Recorder* (3:297) as having graduated from New York University.
76. *Med. Recorder* 3:293, 1820.
  77. *Am. J. M. Sc.* 4:265, 1829.
  78. *Ibid.*
  79. *Med. Repository*, N. S. 5:438, 1825.
  80. *Med. Recorder* 7:436, 1824.
  81. *Med. and Philos. Register* 5:152, 1808.
  82. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  83. *Med. Recorder* 10:223, 1826.
  84. *Med. Recorder* 5:389, 1822.
  85. *Med. Repository* N. S. 5:438, 1820.
  86. *Med. Recorder* 2:303, 1819.
  87. *Ibid.*
  88. *Am. J. M. Sc.* 2:236, 1828.
  89. Letter, University of South Carolina Registrar.
  90. *Med. Recorder* 2:303, 1819.
  91. *Med. Repository*, N. S. 5:438, 1820.
  92. *Med. and Philos. Register* 5:152, 1808.
  93. *Phila. J. M. Sc.* 14:199, 1827.
  94. Letter, University of Maryland Registrar, 1826.
  95. *Med. Recorder* 3:293, 1820.
  96. *Phila. J. M. Sc.* 14:199, 1827.
  97. Letter, University of South Carolina Registrar.
  98. *Med. Recorder* 8:643, 1825.
  99. *Med. Recorder* 10:220, 1826.
  100. *Med. Recorder* 5:389, 1822.
  101. *Med. Recorder* 10:223, 1826.
  102. *Ibid.*
  103. *Phila. J. M. Phys. Sc.* 6:214, 1823.
  104. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
  105. *Med. Recorder* 7:436, 1824.
  106. *Med. Recorder* 8:643, 1825.
  107. *Am. J. M. Sc.* 2:236, 1828.
  108. *Ibid.*
  109. *Ibid.*
  110. *Med. Recorder* 10:221, 1826.
  111. *Phila. J. M. Sc.* 14:199, 1827.
  112. *Am. J. M. Sc.* 2:236, 1828.
  113. *Phila. J. M. Sc.* 14:199, 1827.
  114. *Med. Recorder* 8:643, 1825.
  115. Letter, University of South Carolina Registrar.
  116. *Med. Recorder* 2:303, 1819.
  117. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.

118. Ibid.
119. Med. Philos. Register 1:32, 1810.
120. Am. J. M. Sc. 4:265, 1829.
121. Med. Recorder 8:643, 1825.
122. Ibid.
123. Letter, University of South Carolina Registrar.
124. Med. Recorder 8:643, 1825.
125. Am. J. M. Sc. 2:270, 1829.
126. University of Pennsylvania Medical Department Catalogue of Alumni, 1765-1877, Philadelphia, 1877.
127. Med. Recorder 2:303, 1819.

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## TREATMENT OF VARICOSE VEINS\*

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### *Recent Trends*

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M. M. HAGOOD, M.D.  
*Marietta*

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The early treatment of varicose veins was operative and was directed toward correcting the abnormal circulatory condition present in the affected extremity. In 1889 Trendelenburg, demonstrated in varicosities a reverse circulation and he reasoned that the valves at the sapheno-femoral junction were incompetent. He advocated ligation of the sapheno-femoral vein 10-15 cm. below its entrance into the femoral vein. Many more extensive operative procedures were advanced, based on the time honored and accepted excision of the offending vein, but they were not satisfactory. Long periods of hospitalization were entailed when the wounds became infected and the process of healing left unsightly scars with a high instance of recurrence of the varicosity.

It was this array of evidence that caused the development of the injection method of treating varicose veins. With the advent of the injection method of treatment, many surgeons disregarded certain fundamental principles laid down by Trendelenburg, Schede, Delbet, and Schwartz concerning the circulatory physiology of varicose veins. Along the main trunk of the saphenous magna, both in the thigh and the lower leg, there are often found small, normal veins lying close to and often parallel with the varicose vein. This anatomic fact explains the occurrence often seen in practice that we may carefully excise or

sclerose a vein and in a year or so find another vein present in the same location.

The great saphenous, or internal saphenous, vein is the longest in the body; there are 10 to 20 valves inside this vein. The column of blood has to ascend against gravity. The valves in the interior of the vein therefore help in breaking the pressure of the column of blood. They cannot occlude the lumen when the veins have become distended from varicosities. Near the sapheno-femoral junction a valve is present and, when incompetent, the whole force of the blood column in the iliacs and inferior vena cava is thrust upon the long saphenous. The majority of the recurrences occurred whenever there was insufficiency of the saphenous valves. The thrombus produced by the obliterating solution could not withstand the pressure of the column of blood. This resulted in canalization of the thrombus and in a short time reappearance of the varicosity.

According to Bernstein's<sup>2</sup> classification of the four Trendelenburg states the patient is put in a reclining position on a table. The affected leg is elevated to a vertical position for two or three minutes and the superficial veins are emptied. A tourniquet of thin rubber tubing is placed around the middle of the thigh and tied tight enough to compress the superficial veins. The leg is lowered to the dependent position and the patient assumes the standing position. If the veins remain empty or slowly become dilated by blood flow from below, it is a Trendelenburg negative test and only the superficial veins are incompetent. If the veins fill suddenly on standing, with the tourniquet still on tightly, it is a double positive test and the valves in the communicating and saphenous veins are incompetent. When the tourniquet is released and the veins fill up suddenly from a column of back-flow of blood from above downward, the valves of the saphenous are judged incompetent and it is a positive test. The Trendelenburg nil occurs where there is no reversal of flow in either system.

The patency of the deep circulation is tested by Perthe's modification of the Trendelenburg test. A blood pressure cuff is placed over the foramen ovale and enough pressure is used to obliterate the superficial return; the leg is then exercised and if the

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\*Read before the Seventh District Medical Society, Dalton, Ga., Sept. 28, 1938.



deep circulation is patent, the varices will be pumped empty and the patient will not have subjective symptoms, but if there is obstruction to the deep return the varices will dilate and the patient will complain of intense pain.

The contraindications of ligation of the saphenous vein are practically the same as for the obliterative treatment, namely, incompetence of the deep venous circulation, presence of an acute thrombophlebitis, decompensated cardio-vascular-renal disease and any systemic or degenerative disease. Patients with thrombophlebitis may be treated safely twelve months after the subsidence of the acute attack if the deep circulation is shown to be patent. Ligation should not be done during pregnancy, but may safely be undertaken a few weeks following the termination of the pregnancy. In the presence of a severely infected ulcer of the leg, the ligation treatment is postponed until it is healed and the active inflammatory process is under control. Sarma<sup>3</sup> states that ulcer patients should not be hurried for ligation or injection treatment as invariably a large infected thrombus in the proximal end of the vein resulted. The patient should be carefully examined for arterial disease of the lower extremity before undertaking ligation or injection of the saphenous. Samuel's test should be made to rule out thrombo-angiitis obliterans. In doubtful cases the histamine - acid - phosphate test should be tried.

Since the advent of the sclerosing method of treating varicose veins by Linser<sup>4</sup> in 1911 considerable literature has accumulated regarding the percentages of recurrences. At first it was thought that anyone who could perform a vein puncture could treat varicose veins successfully. However, treatment by injection without due regard for the indications and contraindications have given poor results. After several months many treated varices are redeveloped or recanalized and treatment is again necessary.

In 1934 I<sup>5</sup> reviewed the case reports of patients with varicose veins treated at the vascular clinic at the Harper Hospital by the injection method during the past five years and found an incidence of 34 per cent recurrence. Swinton<sup>6</sup> of the Lahey clinic reports in a review of the patients treated by injec-

tion method from 1928 to 1933 an incidence recurrence of approximately 30 per cent. Sarma<sup>7</sup> reported in 1933 a high incidence of recurrences following the obliterative treatment in many of the patients treated at the University of Illinois Hospital. Since 1934 additional patients have returned with extensive recurrences and at present I feel that a majority of our patients previously treated by the injection method alone will show recurrences after a period of years.

Due to the high incidence of recurrence following injection treatment, I began preliminary ligation of the saphenous vein at the sapheno-femoral junction including in the ligation all the main tributaries of the internal saphenous vein.

As the Trendelenburg negative test signifies that only the superficial veins are incompetent, ligation in these cases is not absolutely necessary and injection of sclerosing solutions will produce satisfactory results. The positive Trendelenburg is a definite indication for ligation of the internal saphenous vein and if injection is done without ligation the back pressure canalizes the thrombus. In a double positive Trendelenburg injection treatment without ligation is only temporarily successful. Our largest number of disappointing results is from this group. Sarma<sup>7</sup> reports that in thirty-seven cases of Trendelenburg double positive treated by high ligation twenty-four resulted in absolute failure. Fortunately, the percentage of these cases is small.

A limited discussion of the details in the technic of the ligation will be described here. Practically all these ligations can be done under local anesthesia. Thus most of the patients can be handled ambulatory without the expense of hospitalization. A transverse incision is made parallel to Poupart's ligament about one-half of an inch below it and continued medially from the femoral artery. The saphenous vein is exposed and the dissection is then carried upward to the sapheno-femoral junction and all tributary veins in that area are exposed. If the operation is to be successful a careful high dissection must be done and the superficial epigastric, iliac circumflex and external pudendal veins must be ligated with the main trunk of the internal saphenous to eliminate all back pressure and

to avoid the setting up of a collateral circulation in that region. The main trunk of the saphenous is then doubly ligated 1 cm. from the femoral vein and a section of the vein removed. At this point I perform a retrograde injection of the entire system using one of the milder sclerosing solutions, such as varisol or 20 cc. of a 30 per cent solution of glucose combined with 10 per cent saline. I believe this is a distinct advantage in the injection treatment, as the varices in the thigh are frequently difficult to locate because of fat, and the thigh is very sensitive in many women.

Immediately following the operation an Ace bandage is applied to the leg as high as the knee and the patient is urged to take a few steps each hour and on the following day to resume his daily routine.

At the end of the two weeks I commence injection of the veins, using standard quinine and urethran solutions, and sodium morrhuate. Four to 6 cc. of either of the above solutions in two to three areas are sufficient at one treatment. I have found that smaller amounts of the solutions and fewer injections are necessary following preliminary ligation than were used when the veins had not been previously ligated.

In conclusion, I feel that in cases of varicose veins where incompetency of the valve of internal saphenous veins can be demonstrated that the preliminary high ligation of the internal saphenous trunk will markedly reduce the incidence of recurrences, the number of injections and the amount of the sclerosing solution used.

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#### HONOR ROLL FOR 1939

1. Randolph County, Dr. W. G. Elliott, Cuthbert, November 9, 1938.
2. Dougherty County, Dr. I. M. Lucas, Albany, December 14, 1938.
3. Wilkes County, Dr. A. W. Simpson, Washington, January 12, 1939.
4. Hall County, Dr. Hartwell Joiner, Gainesville, January 23, 1939.

## THE DIAGNOSIS AND MODERN HANDLING OF PATIENTS WITH CUTANEOUS SYPHILIS\*

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*"Life is short and the art long, the occasion fleeting, experience fallacious and judgment difficult."*

When reflecting on the difficulties of guiding the patient with cutaneous syphilis through the diagnosis, explanation and treatment of his disease, the above aphorism of Hippocrates repeatedly comes to mind. It is particularly applicable to syphilis, because the time for its diagnosis is often short and fleeting and it requires a finesse and judgment in which our experience does not always chart a true course. It is the use of our common sense added to new methods and a much needed enthusiasm that seems to us to be the keystone in the eradication of syphilis in the United States, particularly in the Southern States, wherein 65 per cent of all cases occur.

A word or two about the use of the word "modern." Syphilis as a disease of man has been known and talked about for many years. Certainly, it is as old as our Americas and probably much older. The Chinese, the Chaldeans, the Greeks and the French all had a word for it, but no knowledge of its cause and little of its treatment. The practitioner of the early 1900's as a clinician was probably a better diagnostician of cutaneous syphilis than we are today with our minds befuddled with laboratory tests. He knew of the extent of its ravages, of its contagiousness, of its clinical appearance and of its often venereal origin. But Victorian prudery hampered its control, its discussion and probably much of the advance of knowledge about it. And above all he lacked our efficacious modern treatment and modern diagnostic aids, our health departments and our modern mind. Some physicians are still Victorian in their attitude toward syphilis as a public health problem and also as to treatment and to diagnosis; hence, the word "modern."

We will all agree that the early recognition, diagnosis and immediate treatment of

\*Read before the Polk County Medical Society, Winter Haven, Fla., February 9, 1938.



FIG. 1  
Primary Syphilis. Note the enlarged lymph node.



FIG. 2  
Secondary Syphilis of the tongue. This is the most contagious stage.

syphilis is paramount in its cure and control. Since the earliest lesions are mainly on the skin it behooves us to study its cutaneous manifestations. *The first rule in diagnosis is that the spirochete may enter skin or mucous membrane at any point.* The initial lesion of syphilis is not always venereal—it may, and has been observed in every portion of the body, from the top of the head to the toes. One can cite instance after instance where early diagnosis has failed because of lack of this one guiding principle. The lips, tongue and tonsils are often involved and often the diagnosis of chancre is not considered. This is true less often of the fingers of nurses and doctors. The anus and breasts should never be overlooked as chancre areas. The appearance of the chancre is the same wherever found:

1. It is acute—that is, seldom of more than three weeks duration. Acuteness, however, refers to time, not intensity, for it is often

2. Painless and to the patient more or less insignificant. Herein lies the mistake often made

in accepting the patient's version of his trouble and with a hasty examination passing the trouble by with a casual air.

3. It is an ulceration of no particular characterization—it may be hypertrophic or cu-shaped, oval or round, multiple or single.

4. The edges are usually firm and hard. This is due to the characteristic lymphatic infiltration, almost invariably present in syphilis of any tissue; therefore,

5. There is almost invariably a nearby satellite, painful, enlarged lymph node.

6. In soft tissue such as the lip, tonsil, scrotum and particularly the vulva, the lymphatic response is great and there is excessive edema—a characteristic sign. This is peculiarly characteristic in chancre with phimosis of the prepuce.

Rarely is there such a thing as a "typical hard chancre." All ulcerations with any of the above characterizations should be suspected and *the second rule is: Examine the patient all over and undressed.* A general efflorescent secondary eruption may be present, sore throat or moist papules in the

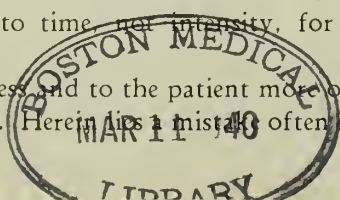






FIG. 3

Secondary Syphilis of the vulva. Flat condyloma—the most contagious stage.

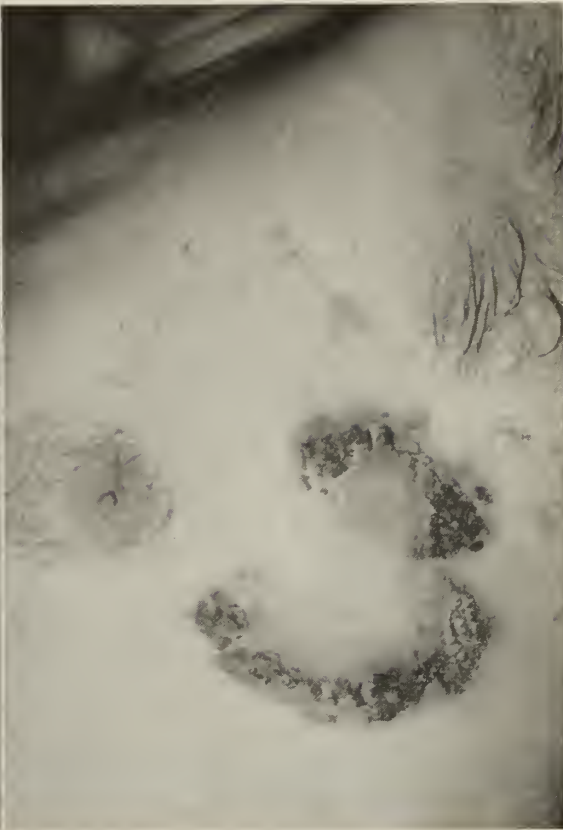


FIG. 4

Late Syphilis of the skin. Note the arciform arrangement.

mouth, anus or vulva and often loose or falling hair. The casual "short arm inspection" of the penis protruding from buttoned trousers is inexcusable—at least lower the trousers and examine the inguinal nodes.

All of this is clinical and should lead to a strong presumptive diagnosis, but this should compel the *third rule*: *Always collect serum from the ulcer* for dark field examination either personally or for your State Board of Health. Do not pass up this procedure as difficult, unhandy or impossible. It is easy and simple. A rubber glove, a piece of gauze, and a capillary tube to collect the serum and vaseline to seal the ends is all that is necessary. This can be sent to a nearby laboratory or to the State Board of Health. To neglect this is one of the major serious mistakes that is made. The other mistake is the interpretation of a blood Wassermann or Kahn test taken at this time. Although, the spirochete invades the blood stream almost immediately after entrance to the skin, the blood has not had time to develop any immune bodies to

the infection and the blood Wassermann will invariably be negative, and both physician and patient will be lulled into a fool's paradise. The darkfield may be negative for many reasons, such as secondary infection, application of antiseptics and poor technique. Repeat the test and repeat the test after saline dressings. Remember the diagnosis of syphilis is a great responsibility, but telling the syphilitic patient that he does not have syphilis almost amounts to a crime, for he is more than liable to disseminate his disease unconsciously.

*The fourth rule is:* Discuss the patient's disease with him fairly and frankly; although he may have little more than a guilty conscience, one must talk of the possibilities of syphilis so that one may substantiate a presumptive clinical diagnosis with (1) history of contact and (2) further laboratory procedure. It is all important that the approach neither be ribald or casual in tone, nor moral or religious in attitude, since either of these airs will cast a spell about that will often

sadly interfere with a diagnosis. It is estimated that on an average in the United States each person with contagious syphilis infects more than one other. Therefore, if we are to accomplish anything in lowering its incidence in our community we must inquire diligently into past contacts and warn seriously of the danger of future contacts. Many times past contacts such as wife, children or friends can be examined and treated before it is too late to effect a cure. By the cooperation of the patient he will often act as chief investigator or one may enlist the help of public health department. Smith and Brumfield<sup>1</sup> in Virginia, have shown in many instances that transmission sequence of syphilis by the above methods. In one case in a period of two months they were able to trace sixteen cases, eight primary eruptions and eight secondary eruptions in nineteen patients examined. Such findings should impress upon us the importance of this rule.

The importance of these diagnostic rules and methods cannot be stressed too often nor too firmly. Let us school ourselves to treat the patient with primary syphilis as an ill patient deserving of all the care and diagnostic acumen that we have at hand; care for him as you would a patient with acute appendicitis or scarlet fever. To treat a patient for supposed syphilis at this stage as a diagnostic test is inexcusable, and still worse to give any treatment as a "prophylaxis."

The secondary eruption of syphilis is due to the dissemination of the spirochete by the blood and lymph. It is well to remember that it not only occurs on the skin, the mouth, throat, anus and vulva, but there is similar tissue response in the liver, spleen, intestines and in some instances in the brain and meninges. The secondary eruption evidences an immune process of the body — just as the eruption in chicken pox, scarlet fever or the rose spots of typhoid fever. The physiopathology is the same here as in the chancre excepting it is more general.

The individual eruptive lesion of secondary syphilis is in reality an actual or embryonic chancre. It occasionally assumes the appearance of a chancre. This is particularly true in the mucous patches of the mouth, of the anus and in condylomas of the vulva. Each is teeming with spirochetes and at this stage

your patient is most contagious and dangerous to others. As in the chancre there is no typical secondary eruption. However, it is usually characterized by certain clinical appearances.

1. It is nearly always generalized—scalp with hair loss, mouth, skin of the face, palms and soles and around anus and vulva.

2. It is more *under* the skin than *on* the skin; hence, backing away from your patient in a good light will often make the eruption more prominent.

3. The mucous membrane lesions are oozing, soft, multiple and conspicuously painless.

4. The lesions are often unusual in their arrangement and grouping. They may be gyrate, circular or grotesque in appearance.

5. There are usually symptoms of mild illness, sore throat and lymph node enlargement.

After all, the diagnosis in this stage depends on acute observation of the examiner, a complete examination and a history. Now the Wassermann or Kahn blood test is positive 95 per cent of the time and is diagnostic. In handling the patient the approach and the responsibility of the physician is as important as it is in the primary stage.

There is another form of cutaneous syphilis which is clinically indistinguishable from the chancre or secondary eruptions, known as the "mucocutaneous relapse." This is in essence the reoccurrence of contagious lesions in an untreated or poorly treated syphilitic patient months or even years after the original invasion. In order to understand this process, the sequence of changes that occur in the early months of the disease must be recalled. The spirochete invades the tissues and immediately proliferates from the center outward, marked by a dense accumulation of lymphocytes and plasma cells which is inversely proportional to the growth of the organism. If the defense is strong there is less multiplication and as the lymphatic tissue gains the upper hand the organism fragments, disseminates and the process repeats itself endlessly in the secondary eruption, through latency and recurs again in late syphilis. Hence the chancre is more of a *type* of reaction than it is a clinical entity. If the initial lesion clears up as a natural process of immunity and no treatment is

given, this natural immunity may be depressed in six months and a mucocutaneous relapse occurs identical with the original and yet the patient will not be conscious of any recent contact and his history may be misleading. Statistics have shown that 26 per cent of relapses occur within six months, and 29 per cent occur in the succeeding six months, and by two years 85 per cent will have occurred. These relapses can be entirely prevented, however, with some form of early treatment.

The primary and secondary stages of syphilis represent the golden opportunity for treatment, and since this opportunity is discoverable only in a fleeting moment and by definite well-tried methods, we have tried to stress these stages of syphilis emphatically. The treatment of syphilis presents another problem—a problem which has been stabilized and emphasized so clearly in the publications of the Committee on Syphilis of the League of Nations, and published in practical form in the *Journal of the American Medical Association*, as well as in the reports placed at every physician's disposal by the U. S. Public Health Department, that only a little emphasis will be necessary here. Copies of these reports can be obtained by writing the U. S. Public Health Service, Washington, D. C. All you have to do is ask for them.

Congenital syphilis is absolutely preventable by intensive treatment even as late as the sixth month of pregnancy. It behooves us all to eliminate, if possible, syphilis as a factor by examination, Wassermann tests and history, from every pregnant woman who consults us. Unfortunately many women consult the doctor too late in their pregnancy for prevention and another golden opportunity is lost. But the child may have syphilitic lesions of a cutaneous nature. These lesions may be both of the early and late varieties and even may be a mucocutaneous relapse.

Congenital syphilis is not hereditary syphilis. There is no such thing as hereditary syphilis. Syphilis of this type is an infection acquired by the fetus from the mother. Many, many years ago before our modern conception of syphilis and when it was associated with degrading sin and mid-Victorian morality transcended the scientific and practical mind, some idiot brought forth Biblical quo-

tations to show that families were *tainted with syphilis*. "The sins of the fathers will be visited unto the sons even to the fourth generation" was whispered from mouth to ear over the whole community. The use of the word "fathers" has held on in the minds of many and has brought about a familiar fear that is totally unwarranted. The old law about congenital syphilis still holds true: The father may have syphilis and the child be normal, but the child will probably have syphilis if the mother has syphilis. The mother may acquire syphilis from the father in its active form but not from the spermatozoa or semen. Recent attempts to inoculate rabbits with syphilis from semen of men known to be syphilitic have failed. It is not infrequent that a father and good husband may have cerebrospinal syphilis, a syphilis acquired previous to marriage, and it behooves the physician to handle the remainder of the family with extreme delicacy.

Due probably to the general increase in good antisymphilitic treatment, we are observing less and less of the late gummatous type of cutaneous syphilis. The present senior medical student will probably not see a single case. The gumma of the skin leaves a well marginated punched out ulceration caused by the gangrenous destruction of tissue in the intense blood vessel infiltration and thrombosis so characteristic of syphilis in any organ. Since the nerve endings are destroyed and sloughed off with the other tissue one of its chief characteristics is the lack of pain. The lack of pain even in a large sloughing ulcer seems to leave most of the patients altogether lacking in excitement or apprehension over their trouble. These late cutaneous lesions seem to be uncommonly grotesque in the conception and arrangement. They are serpiginous, cinctate or arciform in character and arranged in groups in areas curiously inaccessible to ordinary trauma. Their very appearance excites suspicion immediately. But the process does not occur all in one moment and so it is frequent to observe sloughing with granulation and scarring all in the same area as if the inflammation occurred in a regular sequence of events.

In these late lesions the blood Wassermann test is more often negative and if taken seriously the Wassermann is a hindrance to diag-



nosis. Since the syphilis is usually many years old, it is good diagnostic procedure to observe immediate improvement under treatment. A few doses of potassium iodide and mercury by mouth usually result in rapid healing and improvement. This, however, to repeat a warning, should never be done in early syphilis.

Since there is at this stage very little hope of cure and since the patient may have cardiovascular lesions or cerebrospinal lesions, it is eminently wise to treat almost exclusively with bismuth or mercury. But your patient is deserving of a complete physical examination, especially neurologic examination to rule out other manifestations of his disease. A spinal puncture here is as important as it is after the first year of treatment in the acute syphilitic.

In conclusion let me say that we are aware that the cutaneous manifestations of syphilis are only a mirror of the patient's deeper disease and that treatment and handling should be at all times for the patient and not his dermatologic manifestations. But we are also aware that the early diagnosis of his condition is mainly cutaneous and it is for this reason that we have stressed and repeated what is considered the better and modern methods of approach. In observing syphilitic patients here and there in the last twelve years, we have been impressed so many times with the effect of the little things that all of us are liable to neglect. Some of these things come under the head of ordinary courtesy, tact, interest, sympathy, honest approach and explanation, a deep sense of consideration of the patient's mental and moral make-up and an honest effort to help him out of his difficulties with his family, friends and above all with his conscience.

#### DOCTORS IN MUSIC

Do you or any of your medical friends play any musical instrument? Mead Johnson & Company is now preparing a new publication devoted to the hobbies and achievements of physicians, past and present, in the field of music. Doctors' orchestras, doctors' glee clubs, historical or biographical items, with or without illustrations, will be welcomed. Please send your item to Mead Johnson & Company, Evansville, Ind. (If you have not received your free copy of their recent publication, "Parergon," devoted to fine art by doctors, send for it now.)

## SYMPTOMS OCCURRING WITH SULFANILAMIDE RELIEVED BY NICOTINIC ACID\*†

### *A Preliminary Report*

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MORRIS R. HOLTZCLAW, M.D.  
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A majority of patients ingesting sulfanilamide develop unpleasant symptoms which vary greatly in different individuals. Before the drug is administered there is no known way of predicting who will be most discomforted. Experience has shown that the symptoms are less marked if the patient is confined to bed. Any procedure for minimizing the occurrence of symptoms will be welcome.

Rimington and Hemmings<sup>1</sup> noted that patients taking sulfanilamide showed a marked increase in the urinary excretion of porphyrin, which increase was maintained for some time after the drug was discontinued. The pigment was identified as coproporphyrin III which indicates hepatic dysfunction and coproporphyrin I which occurs with a derangement of hematopoietic processes in the bone marrow. The latter is a photosensitizing substance. These authors also pointed out that acute porphyrinuria is associated with nausea, colic, vomiting, constipation, and muscular weakness.

Spies, Cooper and Blankenhorn<sup>2</sup> noted that the porphyrin excreted in large amounts by pellagrins was coproporphyrin I and III, both of which are abnormal in the metabolism of porphyrin. Spies, Bean and Stone<sup>3</sup> in their work with pellagrins found: "The amount of porphyrin in the urine, which was increased in forty-six of the forty-eight pellagrins tested, returned to normal after the administration of adequate amounts of nicotinic acid or one of its salts." In seven cases of radiation sickness treated with nicotinic acid they "noted prompt cessation of the nausea, vomiting, anorexia and headache. In five of the seven cases the amount of porphy-

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†The nicotinic acid and sulfanilamide were furnished through the Department of Medical Research of the Winthrop Chemical Co., Inc.

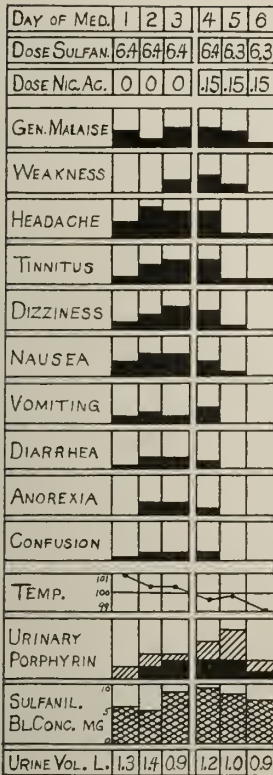


Fig. 1

Composite Response  
of Ten Patients

The doses of sulfanilamide and nicotinic acid are given in grams. The solid shading opposite the symptoms indicates the number of patients making that complaint each day. Opposite the urinary porphyrin, the solid shading indicates the presence, while the diagonal lines indicate a trace of porphyrin. No porphyrin was detected on the seventh day.

made on the blood and urine specimens by the method of Marshall and Litchfield.<sup>4</sup> Urinary porphyrin was detected by ether extraction of an acidified sample of urine, concentration of the ether extract, acidification with 10 per cent hydrochloric acid and examination with the spectroscope.

The response of the patients to the additional administration of nicotinic acid has been very gratifying. The unpleasant symptoms and the porphyrinuria were decreased. Although not shown in the chart, the most marked clinical change noted was a clearing of mental apathy so often present with the ingestion of sulfanilamide before we began giving nicotinic acid in these cases.

The chart shows the composite response of ten patients treated in the above manner.

This preliminary study has raised several pertinent questions. Does the administration of nicotinic acid influence the efficacy of sulfanilamide? Is there a sparing action on the liver and bone marrow? Is the proportion of free and acetylated sulfanilamide changed? These and other related questions are being considered in the continuation of this investigation.

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#### THE USE OF PITUITARY PREPARATIONS DURING THE SECOND STAGE OF LABOR\*

In the November issue of this Journal in an editorial, "The Use of Pituitary Preparations During the Second Stage of Labor," the paragraph concerning mortality rates should read as follows: "Georgia has a white maternal death rate 40 per cent higher than the national white maternal death rate, though our colored maternal death rate is the same as the national rate. Our infant death rate in urban areas is 30 per cent above the national urban rate, while in our rural areas it is just 10 per cent above the national rural rate. It is in our towns that our mortality and morbidity rates are shameful."

Throughout the United States only New Mexico and Arizona have higher neonatal (under one month of age) mortality rates than Georgia.

R. A. WOODBURY, M.D.

\*Correction for editorial which appeared on pages 450-1 in the November, 1938 issue of *The Journal of the Medical Association of Georgia*.

rin in the urine, which was abnormally large, returned to normal."

If the administration of nicotinic acid to patients suffering from pellagra or radiation sickness will ameliorate the symptoms and decrease or eliminate the excretion of abnormal porphyrin, will it have the same desirable effect on patients ingesting sulfanilamide?

This question was first publicly discussed by one of us (A.P.M.) in a paper read before the Fulton County Pediatrics Society on October 14, 1938. Since then we have given nicotinic acid to a number of negro patients receiving large doses of sulfanilamide while they were confined to bed on the male surgical wards of Grady Hospital, Emory Division. A control urine specimen was obtained before sulfanilamide was administered. During the period of observation symptoms were carefully noted. On the fourth day of medication, in addition to the sulfanilamide, administration of nicotinic acid was begun in doses of 50 mg. three times a day. Throughout the period of this regimen 24-hour specimens of urine were collected and an oxalated specimen of blood was obtained daily. Quantitative determinations of sulfanilamide were

## CONTRACEPTION

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*Augusta*

The average layman is much more familiar with the term contraception and its meaning than most medical students and physicians, so the aim of this paper is not so much to bring you a treatise on contraception as it is to prick your curiosity and professional pride. Contraception is the conscious control of the birth rate either by mechanical, chemical or operative means. Contraception is not new but until recently it has been unrecognized. It should be looked upon by the medical profession as one of the most progressive steps in the field of protective medicine; it is not a destructive thing but is a preventive worthy of as much notice as any vaccine used in the field of preventive medicine.

The principal medical factors involved in present day contraception are:

1. Sexual intercourse that is adjusted in frequency, duration and mutual response for the well-being of both partners.
2. Pregnancy to result only as often as it is feasible for the health and well-being of mother and child.
3. Control of conception when the above mentioned conditions cannot be met.

When selecting a contraceptive for a couple the physician should be as careful as he would be when preparing for a major operation, for it is just as important to those concerned. There are certain physiologic and psychologic factors that should be considered in the choice of the contraceptive. Frequency of intercourse, duration of the act, the amount of natural lubrication present and male and female rhythms have some bearing on the selection.

The amount of safety afforded is as varied as the types of contraceptives. The Consumers' Union of the United States has classified contraceptives as *unreliable*, *harmful* and *reliable*. The *unreliable* methods of control are: lactation, the safe period, foam tablets, powders, suppositories, douches, tampons and sponges, jellies alone and spermatoxins. The average woman is less fertile while lactating, but to prolong this period is neither wise nor safe. The calculation of the

safe period is not easily understood by most women and the fact that accurate records should be kept for long periods of time before applying the method make it more difficult. Two proponents of this method, Dr. Reiner and Dr. Latz state that the "safe period" should not be used for several months after confinement, miscarriage or abortion; nor after fever and debilitating diseases, or severe physical injuries; nor after a drastic alteration in the routine of life, such as prolonged travel in a strange climate; nor after strenuous exercise. The foam tablets are dependent upon moisture to liberate carbon dioxide, thus if the vaginal secretion is slight the male ejaculation may take place before the vaginal walls and cervix have been coated. The dry powders may not spread sufficiently to be effective. The suppositories carry the same objections as the powders. Douches, as a contraceptive method, are reliable only for those women who are less fertile. Tampons and sponges are too easily pushed aside during intercourse and even though they remain in place they are apt to be medicated with some irritating chemical. The spermicidal jelly is more effective than the suppositories, tablets and powders providing the woman has never been pregnant, but where there has been one or more pregnancies the jelly is very unreliable. The use of spermatoxins is still too much in the experimental stage to be a safe contraceptive; there are also the dangers of psychic shock and permanent sterility.

The *harmful* methods are: coitus interruptus, intrauterine stems and the Grafenberg Ring. The withdrawal of the penis before ejaculation gives rise to psychic disturbances as a result of the fear of pregnancy, and lack of satisfaction; and possible pelvic disease as a result of prolonged use of the technic. The intrauterine stems provide a ladder for infection, cause irritations and often perforate the uterus. The Grafenberg Ring may induce marked uterine contractions, chronic inflammation and even excessive bleeding.

The *reliable* methods are: the condom, the diaphragm used with spermicidal jelly, the cervical cap and jellies used with the condom or diaphragm. The condom is a much better method of contraception than is commonly believed. It falls short of complete efficiency



because of the poor quality of the commercial brands, about 60 per cent of the total sold are defective; and because the average man is apt to understand neither the technic of application and removal nor the art of testing and preparing one for use. Their satisfactory use demands care and foresight from an intelligent, unprejudiced user. The condom used with a contraceptive jelly should give a protection equal to that given by a diaphragm and jelly. The vaginal diaphragm is a much newer method than the condom and is harmless. It is physically acceptable except where there are conditions that hamper deep reach into the vagina, chiefly thick abdominal walls and shortness of fingers. Extreme relaxation of the vagina, a much damaged pelvic floor or a marked cystocele hinder the use of the diaphragm. Not all women can be perfectly fitted but a questionable fit is often preferable to the use of other methods. Dullness of intelligence and absence of real willingness to take the trouble to secure protection are causes of many of the failures where this method is used. When properly fitted and properly inserted neither the man nor the woman is conscious of the vaginal diaphragm. The coiled-spring type is the most frequently prescribed vaginal diaphragm. The cervical cap differs from the vaginal diaphragm in that it fits snugly over the cervix instead of lying along the vaginal wall. It is held in place by suction. The cervical cap may be made of rubber, bakelite, celluloid or metal. This type of pessary is more difficult to insert than the vaginal type, but when prescribed by a physician who selects the correct size and carefully explains its use it is fairly safe. There are many contraceptive jellies on the market but there is perhaps no one jelly which is suitable for all women, since women react differently to the various formulas and may complain of irritation, excessive lubrication, or dryness. Some of the necessary specifications of a reliable jelly are: spreads readily, adheres well, keeps well, kills spermatozoa instantly, be odorless or pleasant in odor, and non-staining and non-poisonous if absorbed. The Bir-con-jel, Lanteen Blue and Locorol should not be acceptable because they do not meet the above mentioned requirements.

The ideal contraceptive, according to Dr.

Hannah Stone, one of the country's leading authorities on contraception, is "harmless, entirely reliable, simple, practical, universally applicable and esthetically satisfactory to both man and wife." Modern methods fulfill most of these qualifications but there is as yet no method which is infallible or universally applicable.

"An increase in the number of successful marriages will depend in no small part on the increase in the kind of knowledge the physiologist and the physician can furnish. Protective medicine has a special function in the matter of sex instruction. For members of his own profession as well as for other teachers, the physician has a duty to attempt some clear formulation of the physics of the begetting of children and of love-comradeship for life, set forth with dignity and directness. The present training in taboos and the present unpreparedness for the most important of our industries, home making, can be amended only by sound education."

The fact that the *American Medical Association* and the federal and state governments have frowned upon contraception until recently has caused the majority of physicians to shy at their duty to patients and society. Even now no federal law has been repealed or amended, but the status of the physician has been clarified by a series of legal interpretations culminating in the U. S. Circuit Court of Appeals in which it was stated: "Its (the Comstock Act) designs in our opinion was not to prevent the importation, sale or carriage by mail of things which might intelligently be employed by conscientious and competent physicians for the purpose of saving life or promoting the well-being of their patients." Some of the state laws are still ambiguous, but it is fairly safe to assume that in view of the three decisions by the high courts a successful prosecution under these laws would be improbable. The physician is, therefore, free to give contraceptive advice to his patient in private, hospital or clinic practice. The recent action of the House of Delegates of the *American Medical Association* marks a very important milestone in medical contraception. The four specific recommendations are:

1. That the American Medical Association take such action as may be necessary to make clear to physicians

their legal rights in relation to the use of contraceptives.

2. That the American Medical Association undertake the investigation of materials, devices and methods recommended or employed for the prevention of conception, with a view to determining physiologic, chemical and biologic properties and effects, and that the results of such investigations be published for the information of the medical profession.

3. That the Council on Medical Education and Hospitals of the American Medical Association be requested to promote thorough instruction in our medical schools with respect to the various factors pertaining to fertility and sterility, due attention being paid to their positive as well as to their negative aspects.

4. All dispensaries, clinics and similar establishments where information and advice concerning the prevention of conception are given to the public should be under legal licensure and supervision and under medical control.

The South has been much slower in accepting contraception than the North. Our clinics are few and far between; we have one in Augusta that was established three years ago and has served approximately eight hundred women. The clinic charges one dollar for supplies, and gives any married woman professional advice who is not financially able to go to a private physician. Only the coiled-spring vaginal diaphragm is used in this clinic. Women who are in the need of repair operations are referred to the hospital. The correct percentage of successes and failures has not been computed, for the clinic has not had sufficient finances to carry on this work; but the clinic is to be entirely under medical control now and this information will soon be available. I hope that the Mother's Health Clinic of Augusta will be a light to guide you to a better understanding and appreciation of contraception.

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#### HYPERTENSION IN A PATIENT WITH A SOLITARY ISCHEMIC KIDNEY

GUSTAVE FREEMAN and GEORGE HARTLEY, JR., Chicago (*Journal A. M. A.*, Sept. 24, 1938), state that in a case in which high blood pressure developed after the removal of a ruptured but otherwise intact kidney, an athermatous plaque was observed partially occluding the opposite renal artery. Except for terminal pyelonephritis, the remaining kidney was relatively free from vascular, degenerative or inflammatory changes. The situation is analogous to experiments in which hypertension is produced in dogs by partially clamping the artery to one kidney and removing the other kidney. No analogous case was found in the literature.

## AN OPERATION FOR RECTAL PROLAPSE

### Report of Case

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Milledgeville

The operation to be described here is not an entirely original one but is rather a combination of several different proposed operations for the relief of rectal prolapse. Obviously, as will be evident from the description, it is adapted to only the more extreme cases involving a prolapse of all the rectal coats and in those cases where the explanation of the prolapse appears to be due almost entirely to a completely atonic sphincter ani. In a measure this operation is based on the Vernon David modification of an operation described by Rehn and Delorme,<sup>1</sup> in which the mucosa covering the prolapse was denuded and the external sphincter ani pleated. The older method of cauterization was utilized and Kellogg Speed's plan<sup>2</sup> of placing a purse-string suture around the anus was likewise embodied. However, it was felt that none of these measures alone would be adequate in the case to be described; so, with certain modifications, all were employed.

### Report of Case

The patient was a white male, 37 years of age, and an imbecile. Since infancy he had suffered with rectal prolapse which, with advancing age, was becoming progressively more aggravated, both in extent and frequency of occurrence. When first brought to the attention of the writer there was a mass some 10 inches in length and about 4 inches in diameter protruding from the anal orifice. This contained all the rectal coats with probably a portion of the sigmoid colon. The patient was absolutely non-cooperative and it required the combined efforts of several attendants and the physician for some thirty minutes to replace the prolapse. When the mass had been replaced the anal orifice admitted the entire fist with ease. The prolapse continued to recur with each bowel movement and a method of relieving the condition permanently was sought.<sup>3</sup> The Moschowitz operation was considered but was discarded for two reasons: first, it was deemed advisable to avoid an abdominal operation if possible because of the mental status of the patient and the difficulty in obtaining any cooperation; second, we felt that simple obliteration of the cul-de-sac of Douglas would have done nothing toward what we felt to be the most important etiologic factor involved; namely, the atonic musculature.



The patient was prepared for operation by a regime which included a low-residue diet, liberal potions of mineral oil, and finally directly prior to operation, saline enema which were given until the solution returned clear. Routine laboratory work and physical examination proved to be essentially negative except for the present illness. In the operating room the patient was placed in the lithotomy position, and the anus and rectum cleansed and prepared in the usual manner. The operation was done under spinal anesthesia using 150 mg. of novocain. A triangular shaped portion of the mucosa was grasped with Allis tissue forceps in the same manner as when a perineorrhaphy is done. Two clamps were placed at the mucocutaneous junction, posteriorly, about 2 inches apart; the third clamp marked the apex of the triangle and was placed at the point midway between the other two about  $2\frac{1}{2}$  inches from the mucocutaneous junction. A strip of mucosa was then removed between the two lower clamps at the cutaneous border and the remainder of the triangular shaped segment was dissected free and excised. All available fibres of the sphincter ani and levator ani muscles were then grasped with Allis tissue forceps and sutured snugly together in the mid line with interrupted sutures of No. 2 chromic catgut. The cut edges of the mucosa were then sutured with a subcuticular stitch of No. 1 chromic catgut. This procedure resulted in an anal orifice approximately one-half the size of the original, but still larger than the average outlet. Therefore, an ordinary vaginal speculum (virginal size) was introduced into the orifice, no more suitable instrument being available, and with an electrocautery longitudinal cauterization between the blades of the bivalved speculum was done—the cauterization being carried just into the submucosa and extending from the mucocutaneous junction upwards for some  $3\frac{1}{2}$  inches. By rotating the speculum this procedure was repeated at intervals of  $\frac{3}{4}$  inch completely around the rectum with the exception of an area of one inch on either side of the previously excised mucosa. Following this, a purse-string of chromic catgut was placed around the anal orifice beginning at the media raphe. This suture was then tied down until the opening would just admit the points of a pair of Kelly clamps and a small piece of rubber tissue drain was inserted in the opening.

Postoperatively, it was found necessary to restrain the patient because of his failure to cooperate. He was placed on a liquid diet and given an ounce of mineral oil twice daily for the first 10 days. He was given a p.r.n. of morphine gr.  $\frac{1}{4}$  which he received twice on the second day but which was not again indicated. He had no bowel movement during the first week and on the sixth postoperative day his abdomen became moderately distended and tympanitic. To relieve this condition he was given 1 cc. of surgical pituitrin and a male catheter was inserted in the anal orifice. This resulted in the escape of much flatus and a small amount of liquid fecal matter. The patient apparently experienced no further discomfort postoperatively and at no time ran any elevation of temperature. On the tenth day the purse-string suture was removed and the paregoric discontinued. The patient was given a warm saline enema and allowed a soft low-residue diet. The

mineral oil was continued until the patient had a voluntary bowel movement on the eleventh day without much apparent distress. The dose was then cut to one-half an ounce daily. On the fourteenth day the patient was allowed to be out of bed as desired and given a regular diet. Hot sitz baths were given daily for another week. One month later rectal examination revealed an orifice of normal size and good tone. At the time of writing, two months postoperatively, there has been no further shrinkage of the anal orifice and no recurrence of the prolapse. Additional examinations at monthly intervals will be done to preclude the development of a stricture which would appear to be the greatest danger involved.

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## OSTEOMYELITIS AND COMPOUND FRACTURES\*†‡

### *Treatment with Zinc Peroxide and Cod Liver Oil*

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Augusta

Osteomyelitis, using this term as it is most generally accepted, is due to infection by pyogenic organisms of a part or the whole of a bone. The causative organisms may reach the bone through the blood stream. The infection lodges in the metaphysis because here the blood vessels are more numerous and form sinuses and loops which retard the circulation. This, according to Lexer,<sup>1</sup> is responsible for the fact that it is a favorable location for the growth of bacteria. The bone may also be infected from direct extension of an inflammatory process in an adjacent field, or by direct introduction of an infection from the exterior. It is this third type of osteomyelitis that frequently develops as a complication of compound fractures. In fractures the process remains more or less localized. The fracture itself produces an opening in both the cortex and the periosteum, thus drainage is established and extension along the medullary canal will not likely occur.

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†I gratefully acknowledge the aid of Dr. H. M. Michel who supplied some of the patients and for his constructive criticism in this course of study.

‡Acknowledgment should be made to A. Dwight Deas, Ph. G., for his aid and suggestions in developing an efficient preparation.



In treating osteomyelitis, particularly of long bones, it is quite necessary to bear in mind the source of the blood supply. The periosteum is a vascular membrane and sends off vessels which penetrate the cortex through the Haversian canals into the medullary space. The nutrient artery penetrates the cortex and gives off endosteal branches which freely connect with the vessels from the periosteum. The third source is from cortical vessels which supply the epiphyses.

Should the acute type be unrecognized and untreated, there occurs an early stripping of the periosteum which results in the tearing of the periosteal vessels and the destruction of one source of blood supply. Due to congestion and edema, and the fact that the rigid cortex cannot expand, the endosteal vessels become occluded and the second source of blood supply is destroyed. Finally there is occlusion by thrombosis or by pressure of the cortical vessels from the epiphysis which destroys the third and last source of blood supply. This acute type should be considered a surgical emergency.

Likewise, in dealing with subacute and chronic cases of osteomyelitis, we must also be ever mindful of the blood supply. Bone which has been deprived of blood must be removed, otherwise such bone will become a sequestrum necessitating a second operation for its removal.

Inasmuch as our method of treatment is based wholly on the work and experiences of others, details as to etiology, symptomatology, pathology and even treatment need not be reiterated.

Hunter set forth the principles of rest that really form the foundation of the present day treatment of osteomyelitis by immobilization. Both Hilton and Thomas furthered these principles. Many others strongly advocate the idea and carried it into practice, but to Lister, who taught the value of immobilization and infrequent dressings, should go the credit for putting these principles on a firm practical basis. Morison and Beck, with their idea of bismuth paste, added materially to the now recognized standard method of treatment. To Orr<sup>2</sup> belongs the praise for devising the use of non-irritating vaseline gauze packing and absolute immobilization in plaster of Paris casts in treat-

ing osteomyelitis. His idea of debridement and saucerization for adequate drainage forms a most important part of the treatment. Osgood considered immobilization secondary only to drainage. Löhr<sup>3</sup> has had most successful experiences with the use of cod liver oil dressings and immobilization in plaster of Paris casts.

Davson<sup>4</sup> showed that subcutaneous injections of fish oils into rabbits produces a marked stimulation of phagocytes, fibroblasts and young capillaries at the site of injection. His conclusions were that the application of cod liver oil to wounds will promote healing. Pinkerton<sup>5</sup> noted that the acid value of animal oils was greater than that of vegetable oils. He suggested that the amount of free acid was a determining factor of the intensity of tissue response. He also noted that animal oils were hydrolyzed more rapidly than were vegetable oils. His conclusions were that there must be present in the tissues enzymes capable of hydrolyzing animal oils and being incapable of acting on vegetable oils. Sandor<sup>6</sup> concluded that it was Vitamin A that was responsible for the reaction rather than the oil itself and advocated the use of Vitamin A in paraffin oil. We favor the use of animal oils and accept their value as suggested by Pinkerton. Meleney<sup>7</sup> has proved the value of zinc peroxide which furnishes a continuous supply of oxygen to the tissues, the oxygen being given off very slowly over a long period of time. It also is definitely known to inhibit the progress of certain infecting organisms. Neither zinc peroxide nor its by-products are irritating to the tissues.

From our experience with the methods of others, we have devised a technique of treatment which, in our hands, has proved most efficacious. While cod liver oil and zinc peroxide have been separately used with more or less success, we recommend a combination of these for topical application.

Our mixture is made in the proportion of 3½ ounces by weight of zinc peroxide worked into a paste with 4 ounces of cod liver oil. We find sterilization unnecessary because the mixture will not carry contamination and is decidedly bacteriocidal.

The operative procedure which we use is similar to that described by Orr, that is, through debridement adequate drainage and

immobilization in plaster of Paris cast. We, however, fill the cavity with a mixture of zinc peroxide and cod liver oil instead of vaseline gauze packing. With our method, absolute hemostasis is imperative and all bleeding must be stopped before applying the paste. When the cavity is filled with the zinc peroxide and cod liver oil paste, the wound is covered with several layers of gauze which are saturated with this mixture. The limb is then covered with cotton batting and immobilized in a plaster of Paris cast. This dressing and cast are not disturbed for a period of four weeks in the average case unless symptoms indicate spread of the infection. Upon removal there is a healthy granulating wound practically free from odor and showing marked proliferation of epithelium toward the center. A second dressing which, in our experience, is usually the last one necessary, is carried out as is the first but no effort is made to force the mixture down into the wound. A very liberal amount being placed on the wound surface, the limb is dressed and immobilized as previously. At the end of another four weeks the wound has usually healed and, so far, no secondary breakdown has occurred in any patient.

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BERTHA L. ISAACS, FREDERIC T. JUNG and A. C. IVY, Chicago (*Journal A. M. A.*, Aug. 27, 1938), present the results of their studies pertaining to the relation of vitamin A to dark adaptation as measured by the biophotometer in 143 medical students. Their original purpose was to determine whether a correlation exists between the dietary intake of vitamin A, biophotometer readings and clinical symptoms. No correlation could be detected between dietary vitamin A and biophotometer readings. Neither could a correlation be noted in the subjects between vitamin A intake and clinical signs and symptoms of vitamin A deficiency. The authors believe that nothing is gained by translating dial readings of the biophotometer into millifoot candles, because errors are introduced and the effects of certain fallacies are exaggerated thereby, and that the criteria generally chosen for the recognition of vitamin A deficiency by means of the biophotometer are not the most reliable criteria.

## OBSTETRICS IN THE HOME\*

ROBERT BATTEY CRICHTON, M.D.

Augusta

The purpose of this paper is two-fold. First, we want to show the physicians of Augusta and neighboring towns the improvements that have been made in the teaching of students in home obstetrics or deliveries, including instruction and equipment. Second, to try and stimulate a little more interest in the general practitioner, who is doing home obstetrics, and impress upon him the importance of more precautions than he has been taking also that he give more time to these cases in so far as prenatal care is concerned. As we all know, prenatal care includes the instruction to, and examination and supervision of, the expectant mother at regular intervals throughout her pregnancy. We are also endeavoring to show him what things we think are necessary for a complete set-up for home deliveries, which we consider is not very expensive if a man is doing any number of home deliveries a year.

The first improvement we have made is the new and larger obstetric bag, containing much more equipment than the small bag, which no doubt a great number of you present tonight used when you were getting your home obstetrics. For comparison I will tell you the contents of the bag now in use. We have a metal box which contains a pelvimeter, a safety razor, soap and brush, baby scales, silver nitrate 1 per cent in ampules, a tube of No. 2 chromic catgut, 20 day; talcum powder, a tube of K.Y. jelly, two pair sterile gloves, four rectal gloves, an ampule of pitocin, three ergotrate tablets, gr. 1/320; Wassermann tube and catheter, and a can of ether and a mask. We also have a small tin container in which we have a bottle of surgeons soap, a bottle of sweet oil, a bottle of creolin and a bottle of iodine. The next equipment in the bag is the pack, which has previously been sterilized in the autoclave. The contents of the pack are: a sterile gown, four sterile towels, a sterile drape, twelve small pieces of gauze, three perineal pads, cord dressing and tape. The instruments consist

\*Read before the Richmond County Medical Society, Augusta, September 15, 1938.

of two hemostats, a pair of scissors, a needle holder, two round needles and a hypodermic syringe.

As to the instructions given the students, they work in groups of two and remain on the service for twenty-seven days. During this time they are not taught just how to deliver a baby, but are told how to meet the public, how to handle excited friends and the family and to treat patients as though they were their private patients, and to have consideration for their feelings. They are further taught to care for the equipment, such as washing and drying thoroughly all instruments after each delivery. They are also instructed to make a thorough check of the contents of the bag before leaving the patient's home.

These students are accompanied by an instructor on the first eight deliveries before being allowed to conduct a delivery by themselves. After these eight deliveries the instructor is called for any abnormal conditions and is present on all cases where there has been a laceration of the perineum. There is a close watch on post-partum records from day to day. They are required to make re-calls on these patients every day for three days, then every other day until a total of six calls are made. If the patient is normal at the last visit there are no more calls made, but in the event she is running a temperature, or if any other abnormal condition is present, she is visited daily until the condition clears up. We try to keep all of our patients in bed ten days following delivery, and where they have had a laceration we keep them in bed two weeks. At the last visit these patients are instructed to return to the post-partum clinic when the baby is six weeks old, at which time she receives a thorough check-over, with special attention to the perineum, the cervix and the position of the uterus. If there are any complications, she is referred to the proper clinic to overcome the condition.

Now for the second purpose of this paper, namely, to stimulate more interest among the general practitioners doing home obstetrics. First, I will make a few suggestions:

Don't try to rush things along too rapidly. Remember the mechanism of labor, and picture in your mind just what is happening to

the baby during labor. Remember the three stages of labor, the stage of dilation, the birth of the baby and the expulsion of the placenta. Don't rush the first stage of labor, that of dilation, by encouraging the patient to bear down or strain down to her pains, for nature has provided the uterine muscles with enough force to dilate and efface the cervix. You will no doubt ask when should a woman bear down to her pains. The answer—in the second stage, which starts when the cervix is fully dilated and effaced.

Don't make vaginal examinations. Make only rectal examinations. After a short while of practice, you will be able to tell as much by rectal examination as you can by vaginal.

Don't give pituitrin or pitocin to hasten delivery.

Don't deliver a baby during a pain. Always deliver between pains, thereby preventing perineal tears.

We are endeavoring to show that by having a set-up such as we now use for deliveries, you could give your patient a much safer and better delivery.

A few words about the preparation of the patient for delivery. Each patient is prepared first by shaving the pubic hair, the parts are then thoroughly cleansed with surgeons soap and warm water, after which they are douched or sponged off with warm creolin solution.

After the baby is delivered, the patient is given an ampule of pitocin. We use this for we feel it does not affect the blood pressure as much as pituitrin. When the placenta is delivered, 15 to 30 minutes later, we give a tablet of ergotrate 1/320 gr. and repeat every 4 to 6 hours until three are taken. Please don't forget that the third stage of labor is important and that we should not depend too much on drugs to contract the uterus. Therefore we feel that the uterus should be watched closely for 30 minutes after delivery to see that it is contracting as it should.

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The American Medical Association will hold its ninetieth annual session at St. Louis, Missouri, May 15-19, 1938.

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The Atlanta Clinical Society met at the Academy of Medicine, Atlanta, February 8, 9, 10. Dr. Louis H. Newburgh, professor of Clinical Investigation of the University of Michigan, delivered a series of lectures.



## HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY\*

### *Report of Case*

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Hypertrophic pulmonary osteo-arthropathy was first described by Bamberger<sup>1</sup> in 1889, and was given a name by Marie<sup>5</sup> in 1890. Since that time, numerous studies of collected cases, and reports of isolated cases of especial interest have been made. There is general agreement that the condition is usually secondary to some obvious pulmonary disorder.

One of the most complete studies of collected cases is that of Locke.<sup>4</sup> In a series of 144 cases, he noted only 5 which were not apparently secondary to some obvious pulmonary, or other primary disease. He states: "The occasional recorded instances which are apparently without relation to some antecedent disease are worthy of careful consideration as particularly affecting the question of etiology."

### *Report of Case*

A Negro male, aged 21, married, laborer, was admitted to the medical service on July 10, 1936. His family history was not significant. There was a past history of pneumonia in 1924, without complications; and of acute urethritis in 1934. The patient stated that he had noticed slight swelling of his fingers and toes about one month prior to admission. Later, he noted slight stiffness of the ankles, knees and wrists after moderate exercise. When these joints became mildly painful at night, he came to the out-patient department, and was admitted to the hospital for study.

The patient was a well developed and nourished Negro boy. There was no apparent pain or distress, and he was above average in intelligence. Physical examination was negative, with the exception of a soft systolic murmur at the pulmonic area, and findings in the extremities. There was marked clubbing of the fingers, the nails showing an increased curvature, both longitudinally, and from side to side. There was marked softening at the base of all the nails. There was a definite bony increase in the distal ends of the radii and ulnae; this enlargement was wedge-shaped, with the base distally. There was slight clubbing of the toes. There was slight bony increase at the ankles and knees, but less marked than at the wrists. There was no limitation of motion at any of the joints, but on

passive motion of the knees, a sensation of bony grating was obtained.

The patient remained in the hospital until August 11, 1936. During the entire stay, the temperature, pulse, respiration, and blood pressure remained normal. Urine was repeatedly negative. There were 4.8 red cells per c.mm., and hemoglobin was 90 per cent. The white cells numbered 6,000 cells per c.mm., and the differential study was negative. Studies of the sputum were negative. Blood constituents showed: non-protein-nitrogen, creatinine, sugar and cholesterol normal. Blood calcium was 13.2 mg. per cent on July 13, 1936, and 12.4 mg. on July 23, 1936. Electrocardiogram showed no evidence of myocardial damage. Radiologic studies showed an increase in the cortical bone thickness over practically all pipe bones. The terminal phalanges were blunted. The lung fields were clear, and a suspicious shadow in the right lung base was considered to be of no significance after a lipiodol injection. Vital capacity ranged from 2.8 to 3 liters. Basal metabolic rate was minus 9. Red cell sedimentation rate was 31 mm. per hour on admission, and 21 mm. on August 6, 1936. In short, the patient remained in the hospital for one month, during which time, no etiologic factor was discovered.

### *Discussion*

Locke<sup>4</sup> offers a supposition to explain the occurrence of cases similar to the above reported case. He states that it is possible that the original focus may heal, but the bony changes continue to progress. He states that among the large number of reported cases, none exists which is indisputably primary. A review of the literature since the time of his summary also fails to show any record of an indisputably primary case. Our case is not recorded with the contention that it is a primary case, but merely that it is one in which the etiologic factor was not discovered after a thorough search.

It is known that simple clubbing may develop within a short time following development of the primary focus. However, it is the opinion of most observers that the hypertrophic changes are delayed from 3 to 4 years. In this case, there is no history to suggest such a focus, unless the so-called pneumonia in 1924 is significant. Also, the patient gives an unshaken history of perfect health during the intervening 12 years.

### *Summary*

1. A case of hypertrophic pulmonary osteo-arthropathy without a definite etiologic factor is reported.

2. The hypercalcemia is of interest, and has not been stressed in previous reports.

\*From the Department of Medicine, Emory University School of Medicine, and Emory University Division of Grady Hospital, Atlanta.

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NISSL SUBSTANCES IN THE NERVE  
CELLS OF TERATOMA

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Cytologists have for many years considered the character of the Nissl substance in nerve cells to be indicative of various functional and pathologic states. Ingersoll, in 1934, reviewed the evidence and by the method of differential counts showed that decrease in cell size with stimulation was probably much more significant than disarrangement of the Nissl pattern. He was conservative in his statement as to whether or not the type of chromophilic substance may be taken as criteria upon which to base the identification of motor and sensory cells. He questioned the statement that absence of chromophilic substance may indicate fatigue. He further called attention to the fact that even the generally accepted concept of chromatolysis after axone section may not be true since pattern changes did not always occur.

Nevertheless, many investigators insist that in carefully controlled technics, significant findings may be made. Andrew, in 1937, noted that the basophilic substance may disappear with old age in mice and rats and fatigue likewise produced definite pattern changes.

While the following observations do not settle the argument, they do open a new approach to the subject that will need to be considered in any final analysis of the problem. In routine sections of nerve tissue found in a teratoma (surgical specimen 31119, ovarian tumor, negro female, aged 17) neurones of a definite motor type were found which presented a series of changes which simulate all previous findings in the Nissl pattern, under experimental conditions. Random cell counts in the preparation were as follows:

Normal	4
Vacuolated cells	11
Chromatolysis	9
Cytolysis	16
Karyolysis	6

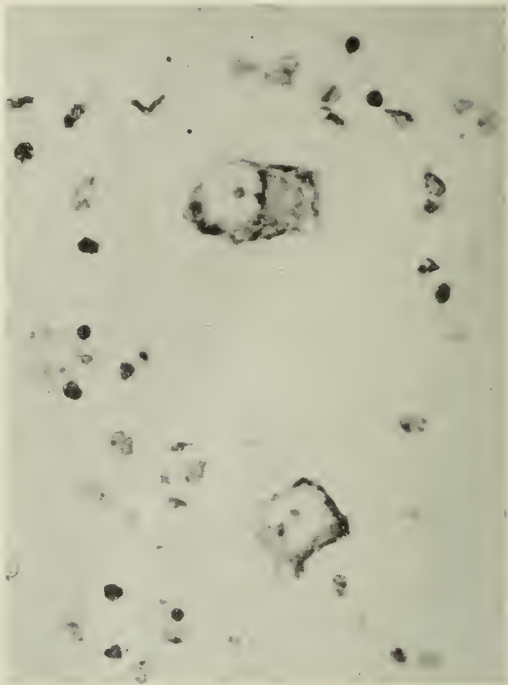


FIG. 1  
Photomicrograph of apparently normal nerve cells in a teratoma from the ovary of a negro female age 17 years. Note the distribution of Nissl substance.

Nucleoli absent	2
	48

The normal cells presented typical vesicular nuclei, sparse in chromatin, nucleoli discrete, sharply defined chromophilic flakes concentrated in some cells on the nuclear membranes or dispersed throughout the cytoplasm (Fig. 1). Satellite astrocytes frequently held their normal positions with reference to these cells. In close proximity to the normal cells, neurones of all grades of degeneration were present. Vacuolization of the cytoplasm and marked cytolysis was in evidence while many cells showed a diffuse stippling and clouding of the cell body. Karyolysis was present either simple or combined with other degenerative changes. Double nuclei were not noted. That all of these changes may be due to infection is possible since bacterial clumps were noted and round cell infiltration was in evidence.

As previously stated, the occurrence of both normal and degenerative changes in the same field questions the influence of age as a major factor since we must assume that the age of the cells in the teratoma was the same as that in the host. Certainly here fatigue can play no part since these neurones, theoretically at least, were non-functional. The whole phenomenon adds one more confusing factor to the enigma of the Nissl substance.

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## THE PRESIDENT'S PAGE

### OUR GOVERNMENT AND MEDICINE

The following figures published by the National Association of Manufacturers should be of interest to all physicians, since they show the position of our country in relation to the rest of the world. Read them. Our citizens have:

118,000,000 insurance policies of all types in force.

42,000,000 savings accounts.

14,000,000 families own their homes.

Since 1776 America has produced three times as much wealth as the whole world produced throughout all history before 1776, yet the United States has only 6 per cent of the world's acreage and only 7 per cent of its population.

We have one-half of the world's communication facilities and electric energy.

We have more than one-third of the world's railways.

We consume one-half of the world's coffee and rubber.

We consume three-fourths of the world's silk.

We consume one-third of the world's coal and two-thirds of the world's crude oil.

We produce 77 per cent of the world's automobiles and have one registered car for each 4.5 persons, whereas the four other leading nations average one for each 32 persons.

We have one radio to each 5 persons against one radio to each 17 in the four other leading nations.

We have one telephone to each 7 persons compared with one telephone for each 35 persons in the other four leading nations.

Our nation has more of the necessities and luxuries needed for the well-being of its people than any other country on earth, so why should we venture into governmental control of medicine when records and comparative statistics show that our methods of handling the sick are the best in the world? The allied professions of medicine, dentistry and pharmacy are today giving the people of this country the best service that any nation has ever had.

The President of our nation, in his message to the Congress January 23, submitted a comprehensive report recommending a long-range \$850,000,000 Federal-State program to improve the nation's health. This report outlined a five point program which, besides health insurance, called for the care of the medically indigent; new hospitals where needed or subsidization of existing hospitals; a national program of maternal and child welfare; and diagnostic and treatment cen-

ters. *The American Medical Association* has approved the last four, but it opposes compulsory health insurance since it can be definitely shown that countries having it in force the longest time have lowered the standard of medical service.

Confusion arising in the minds of the public regarding compulsory health insurance is due to the fact they fail to clearly differentiate as to what are the proper functions of the State, and what are the proper functions of private practitioners of medicine and dentistry. The function of the government should be public hygiene and sanitation, but wherever it has entered the private practice of medicine, inefficiency has always resulted.

For years the United States government has had hospitals for veterans, medical service for the Army, Navy and Public Health Service and the National Institute of Health. In the past the actual practice of medicine, the relation between the individual physician and the individual patient, has not been considered a governmental function, with the exception of the care of persons entitled to be considered governmental wards. All this may be changed. After the National Health Conference was held in Washington last July, there can hardly be any question that there is an increasing public sentiment for Federal services in medicine.

So great are the needs that many people are impatient and unwilling to recognize the complexities of the problem. If people are shoeless or hungry the government may, and usually does to some degree, supply the wants. If people are sick and unable to buy private medical care, why, it is asked, should not the government give the public medicine? They forget that medical services cannot be bought and sold like shoes or potatoes. Keeping people well is not quite so simple as the problems of feeding and clothing them.

Whatever program is adopted it should be formulated with the relations between the individual physician and the patient in mind. The physician must be kept free from political control and must remain "the master in the house of medicine."

GRADY N. COKER, M.D.



# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

FEBRUARY, 1939

## PROGRESS IN PUBLIC HEALTH

Increased interest in public health in Georgia during the past five years reflects creditable leadership on the part of physicians, and a very resourceful attitude from all groups of laymen in our State. Instead of occupying a position among the lowest in the United States in its public health activities, Georgia has probably made the greatest progress within this period of any state in the Union.

Five years ago less than thirty of our counties had adopted the Ellis Health Law; now twice that number are operating under full-time health commissioners and enjoying all the provisions of this splendid measure. Formerly each year little more than \$100,000 was appropriated for the operation of the State Health Department; now nearly a million dollars is spent annually by this department for the promotion of health among our people.

At the meeting of the General Assembly in January, 1937, \$50,000 was appropriated for the control and treatment of cancer; only a few years ago nothing was spent for this purpose, except small sums which the Woman's Auxiliary to the Medical Association of Georgia was able to obtain, along with a few hundred dollars given by friends of the chairman of the Cancer Commission. Seven cancer clinics are now operated in central locations of the State and much progress is noted in the care and treatment of this disease. Under the supervision of the Medical Association of Georgia, the Field Army of the American Society for the Control of Cancer, under the able leadership of Mrs. H. B. Ritchie as commander, has been at work for the past three years in an effort to properly educate the people in their attitudes toward this dreaded disease. It is to be hoped this educational program will be continued.

The number of county and city owned hospitals has been increased from five to twenty-five within five years, and it is possi-

ble now, in every part of the State, for any person to be within a short radius of some institution where they can obtain the services of an efficient hospital staff and the advantages offered through the facilities of a splendid hospital.

The Medical Association of Georgia is operating a Public Relations Bureau which has for its purpose the distribution of information concerning public health, and the dissemination of truth concerning the spurious and fraudulent practitioners who would invade our commonwealth.

The State Board of Health has organized two branch laboratories, one in Albany and another in Waycross, and their facilities are in reach of every part of the State, avoiding congestion or delay in making important examinations.

We are not only promoting the health of our people, saving the lives of many sufferers and those in distress, but are laying a solid foundation for the development of the greatest industrial progress in our history. It does not require a prophet to realize that we are on the eve of an industrial development which has been heretofore hindered on account of the great levy upon capital and business because of our health conditions and the cost of neglect.

The achievements enumerated above are possible only through the fine cooperation and leadership assumed by our present State administration, and the men and women who have composed the membership of the Legislature during this period. More will be accomplished at the coming session of General Assembly because of the type of men and women who will compose its membership. I want to express the appreciation of the physicians of Georgia for the cooperation we have received from the Governor and others who have assisted him in the aid given the Association, and the people whom all of us serve, in the accomplishments so manifest at this time.

B. H. MINCHEW, M.D.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

## THE FACTS AND SIGNIFICANCE OF THE TUBERCULIN TEST

The tuberculin test, the skin test for tuberculosis, is significant. When tubercle bacilli first enter the body, wherever that may be, a small inflammatory focus is set up which drains into the neighboring lymph nodes. Thus, we have the primary or first infection of tuberculosis, and this sequence of events is called the primary complex. This may, and does, take place at any age; but it is most common in early life. It has, therefore, been referred to as childhood or childhood type tuberculosis. The terms primary or first infection tuberculosis are better.

During the establishment of the primary infection, a most important thing happens. It is this: The tissues of the body become sensitive, allergic, to tuberculo-protein. An expression of this allergic state is a positive tuberculin reaction. A positive tuberculin reaction, therefore, means that there is an infection by tubercle bacilli within the body; and that the body tissues are sensitized and prepared to react to the next contact with tubercle bacilli. This contact may come about by a release from within, or an invasion from without — endogenous and exogenous respectively. Conversely, a negative tuberculin reaction means there is no infection in the body and consequently no allergic state exists.

The violent reaction between such sensitized tissues and tubercle bacilli leads to the destructive form of pulmonary disease. Technically, it is termed the re-infection type of tuberculosis. There can be no re-infection type of the disease without a preceding primary infection. The primary infection itself, as a rule, causes little damage. The primary infection in its very beginning can be exquisitely determined by the tuberculin test, and by it alone.

The tuberculin test affords one of its most valuable services in case finding surveys as in schools, colleges and large industrial groups. It readily screens out the non-infected person. A positive reactor among children, particularly in the pre-school age, strongly suggests the home as the source of the infection. At the present day, the concentration of effort in case finding surveys has been shifted to the high school age. Less attention is paid the

group from childhood to young adult life. The age period, 5 to 15 years, may be aptly called the silent period of tuberculosis.

In terminal or overwhelming disease, and shortly following some acute diseases such as measles, a positive tuberculin test is almost absolute proof of the existence of a tuberculous infection. The conclusion to be drawn, therefore, is that every positive reactor is a potential possible victim of tuberculosis. In the differential diagnosis of a case, a negative tuberculin reaction aids greatly in ruling out tuberculosis.

After cleansing the surface of the forearm with alcohol or acetone, 0.1 cc. of the tuberculin is injected intradermally. Immediately following the injection, and at the puncture site, there forms, when the injection is properly made, a small round white elevation or wheel. This soon disappears. The test is then read at the end of 48 hours. A positive reaction consists of an edematous swelling surrounded by a reddened area. There seems to be little or no correlation between the intensity of the reaction and the extent or activity of the lesion in the lung.

There are several preparations of tuberculin, but the ones usually employed are the old tuberculin and the purified protein derivative, or P. P. D. The latter is definitely preferable, being more stable and more standardized. To secure the best results, reliable results, it is imperative that proper materials and correct technic be employed.

CHAMP H. HOLMES, M.D.

### AN OPEN LETTER TO THE MEDICAL PROFESSION

On March 6, 7, and 8, the Southeastern Surgical Congress will present to the medical profession of Atlanta and the South one of the most extensive post-graduate lectureship courses ever given in the South. Forty-four distinguished teachers, internists, and surgeons will deliver lectures during the three days.

Beginning at 8:30 each morning the bombardment will continue throughout the day until 5:30 in the afternoon. Round table sessions will be held daily from twelve until two in the afternoon. A night session will be held Monday, March 6, at which time Irvin Abell, President of the American Medical Association, will deliver the C. Jeff Miller Memorial Lectureship. Morris Fishbein, Editor of the Journal of the American Medical Association; Walter Alvarez, of the Mayo Clinic, and Arthur E. Hertzler, the Horse and Buggy Doctor, will also lecture Monday night. Tues-

day evening a banquet will be given to which the doctors and their wives are invited.

Every branch of surgery will be covered during the three days. There will also be lectures by internists such as Alvarez, Roesler, and Cason. Another prominent internist, J. C. Ruddock of Los Angeles, will bring to us the new methods of peritoneoscopy. (He looks into the abdominal cavity through this scope just as the urologist looks into the bladder, and he will demonstrate this method.)

Almost ten years ago the Southeastern Surgical Congress was founded in Atlanta by Atlanta men for the medical profession of Atlanta and the Southeast. Since that time post-graduate lecture courses have been held under the auspices of the Congress in Atlanta and throughout the Southeast yearly. This year is the tenth Anniversary of the Congress and it comes back to its place of birth for a great celebration. Won't you join in the celebration?

The following men will make this graduate course of lectures well worth your time. No progressive doctor within reach of Atlanta can afford to be absent. You will be asked to pay a registration fee of \$5.00 to help defray the expense of this meeting.

#### *General Surgery*

Irvin Abell, Louisville, Ky.  
W. Wayne Babcock, Philadelphia, Pa.  
W. D. Haggard, Nashville, Tenn.  
Deryl Hart, Durham, N. C.  
Mims Gage, New Orleans, La.  
A. L. Lockwood, Toronto, Can.  
Howard Mahorner, New Orleans, La.  
Lloyd Noland, Fairfield, Ala.  
Fred Rankin, Lexington, Ky.  
E. L. Rippey, Nashville, Tenn.  
Hugh H. Trout, Roanoke, Va.  
George Crile, Cleveland, Ohio.  
G. A. Hendon, Louisville, Ky.  
A. E. Hertzler, Halstead, Kan.  
D. L. Maguire, Charleston, S. C.  
J. L. McGehee, Memphis, Tenn.  
G. C. Penberthy, Detroit, Mich.  
Mont R. Reid, Cincinnati, Ohio.  
Hugh Gamble, Greenville, Miss.  
C. S. Venable, San Antonio, Texas.  
W. W. Harper, Selma, Ala.  
G. H. Bunch, Columbia, S. C.

#### *Gynecology and Obstetrics*

W. R. Cooke, Galveston, Texas.  
George Gray Ward, New York City.  
W. O. Johnson, Louisville, Ky.  
M. Y. Dabney, Birmingham, Ala.

#### *Genito-Urinary Disease*

Meridith F. Campbell, New York City.  
G. A. Hendon, Louisville, Ky.  
A. I. Folsom, Dallas, Texas.  
R. W. McKay, Charlotte, N. C.

#### *Neurology and Brain Surgery*

G. H. Bunch, Columbia, S. C.  
J. G. Lyerly, Jacksonville, Fla.  
W. J. Mixter, Boston, Mass.

#### *Orthopedic Surgery*

Frank Dickson, Kansas City, Mo.

A. R. Shands, Jr., Wilmington, Del.

H. H. Kessler, Newark, N. J.

C. S. Venable, San Antonio, Texas.

#### *Eye, Ear, Nose, Throat*

Austin A. Hayden, Chicago, Ill. (Oto-Rhino-Laryngology).

W. R. Buffington, New Orleans, La.

#### *General Medicine*

Walter Alvarez, Rochester, Minn.

Hugo Roesler, Philadelphia, Pa.

T. Z. Cason, Jacksonville, Fla.

J. C. Ruddock, Los Angeles, Cal.

#### *Special*

W. H. Stewart, New York City, Roentgenologist.

A. E. Hertzler, Halstead, Kan., Author and Surgeon.

Irvin Abell, Louisville, Ky., Surgeon and National Medical Official.

Walter Alvarez, Morris Fishbein, A. L. Lockwood and J. C. Ruddock.

Hope that you will plan to attend these lectures.

Yours sincerely,

B. T. BEASLEY, M.D.,  
Secretary-Treasurer.

### ART TELLS HISTORY OF AMERICAN MEDICINE



"BEAUMONT AND ST. MARTIN"

"Beaumont and St. Martin" is the first of six large paintings in oil memorializing "Pioneers of American Medicine" which artist Dean Cornwell will complete in the next few years. Others in the series are: Dr. Oliver Wendell Holmes, Dr. Ephraim McDowell, Dr. Crawford W. Long, Dr. William T. G. Morton, and Major Walter Reed, and one woman, Dorothea Lynde Dix who, while not a physician, stimulated physicians to study insanity and feeble-mindedness.

Arrangements to supply physicians with free, full color reproductions of "Beaumont and St. Martin" without advertising, and suitable for framing, have been made with the owners, John Wyeth and Brother, 1118 Washington Street, Philadelphia.



**GEORGIA DEPARTMENT OF PUBLIC HEALTH**T. F. ABERCROMBIE, M.D., *Director***MURINE TYPHUS FEVER AND  
METHODS OF CONTROL**

Murine typhus fever—or as it is more commonly called, Brill's disease—is a disease primarily of rats with an occasional occurrence in man. The disease is transmitted to man by means of rat fleas that have become infected from rats having typhus. Unlike the transmission of malaria by means of the bite of a certain species of mosquito, typhus is transmitted not by the bite of the flea, but by means of the infected feces of the flea entering into the blood stream through flea bites or abrasions. In view of this it may appear that the disease in man would be accidental. However, we have observed the gradual increase in the disease in Georgia from 51 cases and one death in 1929 to 1,046 cases and fifty-one deaths reported in 1937. Although it has not reached an acute stage at the present time, it has gained sufficient momentum and recognition during the past few years to necessitate the initiation of control measures.

In view of the high standards of living and sanitation in this country as compared with that some of European countries, body lice, which are the vectors of another form of typhus, are not present to any great extent whereby this disease may spread from one person to another. It only occurs sporadically and it is probably acquired directly from the animal reservoir, which in this case is the rat.

The disease apparently originated in this State from seaport towns, possibly entering by means of ships from foreign ports carrying rats that were infected with the disease. Since the probable entrance through seaport towns, it is indicated that the disease has spread inland by means of main lines of communication, such as railroads, bus lines, etc., with a gradual increase throughout the southern half of Georgia. The greatest number of cases, however, in recent years seems to have occurred in about fifteen counties in the southwestern part of this State. Occasionally cases are found in North Georgia counties but the number of cases occurring in this section has by no means reached the proportions of the number of cases occurring in the South Georgia counties. The increase in North Georgia certainly indicates that the disease is spreading northward in the State. Reports from citizens of various communities over the State indicate that a great increase in the rat population, especially the Norway or brown

rat, has been noted and this, along with the flea index, may be considered as the major factor in explaining the increase of the number of typhus cases and the movement northward. During this past year the disease was reported in eighty-six counties of Georgia and in at least twenty states of the Union.

Although typhus fever is considered as occurring mostly in cities, towns, and communities, many cases have been found to originate in sparsely settled areas, thereby increasing the problem of control. The disease is mostly contracted by people associated with food handling establishments, such as grocery stores, restaurants, markets, food storage warehouses, etc., as in these places the rat infestation is much greater than in other places of business or residences due to the abundance of food and harborage that is available to rats. It has been found that rats multiply to the limit of their available harboring places and food supply. The disease occurs throughout the year with the greatest number of cases being reported during the months of August and September and the lowest number during the month of February. The number of deaths occurring from typhus is very low, as only about three out of every one hundred victims die from the disease. It has no regard for economic status, sex, color, or race, as frequently it occurs among our most prominent citizens, both male and female, as well as among the colored race.

Investigations that have been made on the study of typhus fever in Georgia reveal that the approximate loss to the persons having the disease for doctor, drugs, hospital, actual loss of income, and other miscellaneous expenses, averages about \$150.00 per patient. Multiplying this by 3,391, the total number of cases reported during the period from 1933 to 1938, gives an estimated cost to the citizens of our State of slightly more than \$500,000.00. No estimate can be made for the loss of human life and the permanent disability which occurred during this period.

The rat flea plays an important role in the transmission of this disease as it completes the link between man and the rat. It will be noticed on other animals, such as dogs, cats, that a very small infestation of fleas is found during the winter months of the year as compared with the larger infestation of fleas in the summer months. This is true also in the case of rats, there being fewer fleas per rat during the winter months than during

the summer. This, along with the large rat population, explains in part why the greatest number of typhus cases occurs during the months of August and September of each year.

For centuries man has been interested in rat control, primarily from the economic value. History reveals many stories and accounts of means employed to combat the rat. From these and other more recent ones, we have learned that the measures which have been employed, such as trapping, poisoning, and natural enemies, have been of temporary benefit as indicated by the fact that at the present time we still have a considerable number of rats in practically every community. In order to permanently solve this rat problem and prevent the spread of disease, it is necessary that the close association between man and rat, which must exist for the transmission of typhus fever, be broken and this can be successfully accomplished only by repairing existing buildings and residences in a rat-proof manner, as well as constructing all new buildings rat-proof. Rat-proofing of buildings or residences is the elimination of enclosed spaces that form hiding and nesting places for rats or the protection of these enclosed spaces from the ingress and egress of rats by the use of material that is inherently rat-proof; that is, impervious to rat gnawings, such as concrete, masonry, tile, and galvanized iron.

Excellent examples of hiding and nesting places which may be found in existing structures are double walls, spaces between the floors and ceilings, hollow tile partitions, enclosed stairways, spaces beneath floors, mass storage of material and merchandise, rubbish heaps, raised platforms, old furniture, and odds and ends piled in cellars, attics, and closets.

Food is as essential to rat as to man. Eliminating the rats' food supply, thus creating a food shortage, limits the number of rats that premises will maintain and consequently reduces the breeding of rats. Hunger also renders poisoning and trapping more effective. Means by which rats' food supply may be abolished are to store foodstuffs in rat-proof buildings, rooms, or metal containers, and to dispose of waste and garbage in tightly covered receptacles. Every premise should be provided with a metal water-tight garbage can with a tight-fitting cover of sufficient size to retain all the garbage accumulation for at least three days. In municipalities where garbage collection service is provided, garbage cans on premises greatly facilitate the handling of garbage, thereby maintaining the maximum efficiency of the collection system at a minimum cost to the taxpayer. Not only does adequate garbage

removal and disposal play a major role in the reduction of rat infestation on premises, but it also takes a major part in the beautification of the community, thus eliminating unsightly conditions that are often found to exist in alleys due to the lack of proper garbage receptacles. In rural homes garbage should be disposed of by burning, burying, or feeding to hogs.

Large piles of stove wood or discarded lumber often provide harborage for rats on premises. Elevating this material on racks two feet above the ground or stacking in small neat piles will often eliminate this as a hiding place for rats. All discarded lumber, rubbish, etc., should be removed from underneath houses and in cellars as this is usually the cause of rat infestation in homes due to the harborage provided by this material. Outbuildings also should be kept free of accumulated plunder, old furniture, etc., or it should be stored on racks approximately twelve inches away from wall. Extermination campaigns do have their place in rat control, but only as a temporary means.

Rat extermination by means of poison bait is effective in keeping the rat population at a minimum when carried on periodically every two or three months. It must be realized, however, that extermination campaigns cannot be depended upon to permanently rid premises of rats. This can only be accomplished by rat-proofing as outlined previously.

The principal objection to the use of poison bait is the danger to human beings and domestic animals. This danger may be met by using as mild a poison as possible and by exercising the proper care in exposing bait. The most desirable poison which has been found to overcome the objection is red squill, which is relatively harmless to human beings and domestic animals and at the same time is very effective in destroying rats. This may be explained by the fact that rats cannot vomit whereas human beings and domestic animals can vomit. Very few animals, such as pets and fowls, will eat bait containing red squill due to its acrid taste. However, it is advisable that the bait be exposed out of the reach of ordinary domestic animals. Should the bait be eaten by any domestic animal, vomiting will ensue and rid the animal of the poison. The rat, not being able to vomit, gradually is overcome by the poison and dies as a result of paralysis. Red squill is a slow-acting poison which allows sufficient time for the sick rats to get back to their burrows, thus keeping to a minimum the objectionable odors resulting from decaying rat carcasses.

L. M. CLARKSON, *Director  
of Sanitary Engineering.*



### WOMAN'S AUXILIARY : OFFICERS 1938-1939

President—Mrs. Warren A. Coleman, Eastman.  
 President-Elect—Mrs. Eustace A. Allen, 18 Col-  
 lier Road, N. W., Atlanta.

First Vice-President—Mrs. H. G. Banister, Ila.  
 Second Vice-President—Mrs. Jas. L. Nevil,  
 Metter.

Third Vice-President—Mrs. D. T. Rankin, Alto.

Parliamentarian—Mrs. Ralph H. Chaney, Forest Hills, Augusta.

Recording Secretary—Mrs. Cleveland Thompson,  
 Millen.

Corresponding Secretary—Mrs. J. Cox Wall,  
 Eastman.

Historian—Mrs. C. C. Brannen, Moultrie.

Treasurer—Mrs. Robert Woodbury, Augusta.

### THE MRS. JAMES N. BRAWNER CUP

In order to stimulate greater interest in the various phases of Auxiliary activity and to encourage increased membership in county auxiliaries, Mrs. James N. Brawner, Atlanta, first president of the Auxiliary, offers a silver cup which is to be used as an award to the county auxiliary best fulfilling the prescribed program of work as outlined by the State and National Auxiliaries and carrying out the local health program approved by the Advisory Committee of the county medical societies.

The cup shall become the property of the county auxiliary winning it for a period of one year, the local president, or her appointee, to be the custodian. The name of the auxiliary and date of award is to be engraved upon the cup each year. The final decision will rest with a committee of three to be elected by the State Executive Committee one year in advance to be known as the Mrs. James N. Brawner Award Committee.

Auxiliary credits to the award of the cup follow:

1. State and National dues paid by March 31st 2.5
2. Delegate representation at annual State Convention and report of year's work presented 2.5
3. Report of year's work sent to State President by April 1st 2.5
4. Names of newly elected officers sent immediately after election to State President and State Corresponding Secretary 2.5
5. All communications pertaining to Auxiliary work answered immediately 2.5
6. At least three items of publicity sent to State Publicity Chairman each year (Clippings of publicity to be brought to State Convention in Scrapbook or mounted on cardboard) 5
7. Gift of Hygeia subscriptions to local library or schools 5
8. Increase in Hygeia subscriptions, based on membership 5
9. Program plans for year's work made in advance and copies sent to State Program Chairman 5
10. One or more Health Educational Programs during the year open to the public or to representatives of lay organizations 10
11. Providing speakers on health subjects for lay organizations (Parent-Teacher Associations,

- Women's Clubs, Church Groups, etc.) 10
12. Observance of Doctor's Day, March 30th 5
13. Increase in Membership (Percentage basis) 5  
 (If all eligible members are enrolled, full number of credits will be given.)
14. Active participation in some project for community betterment (Assisting in Women's Army for control of cancer, immunization drives, tuberculin tests among school children, etc.) 10
15. Full forces of active chairmen (or as many as membership allows) to correspond with State and National Auxiliaries 2.5
16. An Advisory Committee from local medical society 2.5
17. Exhibit of highlights of year's work at Annual State Convention 5
18. Exhibit of Year Book and History at Annual State Convention 2.5
19. Donation to State Student Loan Fund 10
20. Donation to State Health Film Fund 5

### Sixth District

The Woman's Auxiliary to the Sixth District Medical Society met in Macon the same day that the society met. Dr. Grady Coker, of Canton, president of the State Association, talked at both meetings, and in his talk to Auxiliary members he stressed opportunities for Auxiliaries in the national health program and told of the need for rural community health centers.

Mrs. Warren Coleman, of Eastman, president of the Auxiliary, spoke to the members and Miss Mary Stovall, of Wesleyan College, gave two readings. Mrs. Rhea Richardson, president of the Macon group, welcomed the visitors and Mrs. O. L. Rogers, of Sandersville, responded. Mrs. W. W. Chrisman, of Macon, president, presided over the meeting. Forsyth was selected as the meeting place for both society and Auxiliary in June. Visitors were entertained at luncheon at Hotel Dempsey.

### Bibb County

Mrs. Wallace Bazemore and Mrs. Walter Mobley were joint hostesses to the Bibb County Auxiliary for the November meeting at the home of Mrs. Bazemore in Macon.



Trooper R. E. Lee, of the department of public safety, Atlanta, addressed the members on "Saving Human Lives" and gave causes of fatal accidents. He said speeding in excess of 60 miles an hour caused most accidents, with passing on curves and hills and drunken driving following closely.

Mrs. R. W. Richardson, president, appointed Mrs. Emory Clay chairman of the luncheon to be given for visitors attending the Sixth District Auxiliary meeting and Mrs. Leon Porch and Mrs. Ralph Newton were appointed in charge of registration.

The Auxiliary voted to continue giving subscriptions to Hygeia to Washington Memorial Library, the Y.W.C.A., and the Y.M.C.A. Following the meeting Mrs. Bazemore and Mrs. Mobley entertained the 25 guests at tea. Mrs. Willard Golsan and Mrs. Emory Clay presided at the tea and coffee services.

#### *Fulton County*

The Woman's Auxiliary to the Fulton County Medical Society met on December 2 at the Academy of Medicine, Prescott Street, Atlanta. A board meeting preceded the meeting, over which Mrs. B. L. Shackelford, president, presided. A luncheon followed. Mrs. E. A. Allen, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, and Mrs. Olin Cofer reported on the recent meeting of the Woman's Auxiliary to the Southern Medical Association, held in Oklahoma City. Mrs. Warren Coleman, state president, accompanied them to the meeting, at which Mrs. Cofer was elected second vice-president.

Dr. C. C. Aven, president of the Fulton County Medical Society, talked on "Public Health and Legislation" and Dr. J. C. Blalock discussed narcotics. Mrs. J. Bonar White, former local, state and southern president and former first vice-president of the Woman's Auxiliary to the American Medical Association, talked on "What Every Auxiliary Member Should Know."

A committee from the Auxiliary recently made and filled 30 stockings to be given to the children in the ward at Grady Hospital at Christmas. The stockings, made from green, red, pink or yellow checked gingham, were filled with most attractive novelties for the children. Mrs. Charles Daniel had charge of the work. Fulton county members do much good work at Grady, as well as philanthropic work in other lines.

#### *Baldwin County*

The Auxiliary to the Baldwin County Medical Society met on December 12 in Milledgeville at the home of Mrs. O. C. Woods

with Mrs. C. B. Fulgum and Mrs. H. R. Cary as co-hostesses. Mrs. J. I. Garrard stressed the importance of Hygeia and Mrs. George Echols gave news from the Auxiliary pages of the Medical Journal. After a talk by Mrs. L. P. Longino, Mrs. E. W. Allen talked on the importance of public relations. Mrs. Longino reported on the recent district meeting held in Macon, after which a social hour with refreshments was enjoyed.

#### *Richmond County*

Mrs. R. C. McGahee was hostess to the members of the Richmond County Auxiliary at a recent meeting at her home in Augusta, co-hostesses being Mesdames Perry Volpitto, W. F. Hamilton and R. B. Greenblatt. Mrs. H. G. Banister, of Ila, first vice-president of the State Auxiliary, gave an instructive talk on "Health Education in Our Changing Social Time." The hostesses served tea following the program and business session.

#### *Fulton County*

The Woman's Auxiliary to the Fulton County Medical Society sponsored a health education meeting on January 11 at the Academy of Medicine, Atlanta. Several hundred principals, teachers and members of P.-T. A. groups of Atlanta schools were present for the program, which was on "Syphilis and Its Control."

Dr. Ross Brown, of the State Department of Public Health, was the principal speaker and showed a film entitled "Three Counties Against Syphilis," covering the work of the mobile unit last summer in McIntosh, Glynn and Camden counties. Robert F. Maddox, chairman of the State Board of Health, explained a marriage qualification bill to be introduced in the Legislature by the Georgia Branch of the American Social Hygiene Association. The bill will be sponsored by Dr. Glenville Giddings, chairman of the Committee on Public Health and Instruction and Dr. A. O. Linch, chairman of the Committee on Public Policy and Legislation of the society.

Dr. E. H. Greene, president of Fulton County Medical Society, presided over the meeting, which was in charge of the Public Health Education Committee of the Auxiliary. Guests were welcomed by Mrs. B. L. Shackelford, president of the Auxiliary, and following the program were entertained at luncheon by the Auxiliary, with Mrs. J. C. Blalock having charge of the entertainment.

The Fulton County Auxiliary entertained the society members at open house on Tuesday, January 31, at the home of Dr. and Mrs. B. L. Shackelford in Atlanta, the occasion honored the newly-installed officers of the

society. Mrs. William A. Smith was chairman of the delightful affair, assisted by Mrs. Jack Norris, co-chairman; Mrs. W. C. Waters, Mrs. A. O. Linch, Mrs. Stacey Howell and Mrs. Harold McDonald.

#### *Washington County*

Mrs. F. B. Rawlings was re-elected president of the Washington County Medical Auxiliary at a meeting held on December 22 at the Woman's Club House. Other officers elected for the ensuing year were Mrs. O. D. Lennard, president-elect; Mrs. B. L. Helton, first vice-president; Mrs. N. Overby, second vice-president; Mrs. N. J. Newsom, secretary; Mrs. Emory Newsome, treasurer; Mrs. J. B. Dillard, historian; Mrs. O. L. Rogers, reporter; and Mrs. W. M. Cason, parliamentarian.

Mrs. Rawlings presided over the meeting and Mrs. Rogers gave the opening prayer. Mrs. Dillard presented an interesting paper, "What the Auxiliary Means."

At 7:00 o'clock, members of the society joined the Auxiliary for dinner. The table was beautifully decorated with Christmas trees and silver candelabra holding red tapers. Placed at intervals were compotes of red and green mints. Mrs. Helton gave a vocal solo, Miss Martha Hermann presented readings and Mrs. Ralph Roughton presented piano selections. The ladies had brought gifts for the men and they were distributed by Dr. N. J. Newsom, president of the society. Dr. Beck, Dr. Albert Evans and his friend, Dr. John Schmidt, of Baltimore, were guests for the occasion.

#### *Third District*

The Woman's Auxiliary to the Third District Medical Society met in Cordele on November 9. After an interesting program arranged by the Cordele Auxiliary, a business session was held with the district manager, Mrs. Loren Gary, Jr., presided. Officers for the year were elected as follows: Mrs. J. Cox Wall, of Eastman, district manager; Mrs. L. S. Hope, of Marshallville, secretary-treasurer, and Mrs. Lewis Abrams, of Fitzgerald, manager-elect.

#### *Randolph County*

The Woman's Auxiliary to the Randolph County Medical Society met recently with Mrs. W. G. Elliott in Cuthbert. Plans for the year's work in Hygeia were presented and approved. Officers elected were: Mrs. Loren Gary, Jr., of Shellman, president; Mrs. T. F. Harper, of Coleman, vice-president, and Mrs. W. G. Elliott, of Cuthbert, secretary-treasurer.

The Auxiliary held its final meeting of 1938 with Mrs. J. C. Patterson in Cuthbert. The Jane Todd Crawford Memorial and Research in Romance of Medicine were subjects

for discussion. Nine members were present.

#### *Cherokee-Pickens Counties*

The Cherokee-Pickens Medical Auxiliary entertained at a dinner party on December 13 at the Hotel Canton. During the business session, a nominating committee, with Mrs. J. R. Boring, chairman, was appointed to name officers for the coming year. Present were Mesdames J. T. Pettit, J. R. Boring, J. F. Covington, C. J. Roper, of Jasper; John Turk, of Nelson, and T. J. Vansant, of Woodstock.

#### *Clarke County*

Dr. L. S. Patton spoke to the members of the Clarke County Medical Auxiliary at the January meeting at the home of Mrs. H. H. Cobb in Athens. Dr. Patton gave some reasons why Georgia should have a premarital examination law, saying a health certificate at marriage would reduce the number of syphilitic cases, of which 24,111 new cases were reported in Georgia in 1938.

Mrs. H. G. Banister, president, presided over the business session. Plans were made for the meeting of the Tenth District Medical Society in Athens in February and for the public relations meeting the same month. The Auxiliary is divided into two groups for a membership contest, with Mrs. Harvey Cabaniss' group ahead of Mrs. S. D. Brown's group at present. Mrs. Cobb entertained at luncheon following the meeting.

#### NEWS ITEMS

THE GEORGIA MEDICAL SOCIETY, Savannah, met on January 10. Dr. R. L. Oliver read a paper entitled *Pathology of the Thyroid Gland—Illustrated with Lantern Slides*; discussion was led by Dr. Lee Howard and Dr. J. K. Quattlebaum. Dr. H. T. Compton reported a case, *Fracture—Dislocation of Lumbar Spine*.

DR. J. J. COLLINS, Thomasville, radiologist for the John D. Archbold Memorial Hospital, spoke before a meeting of the Thomasville Kiwanis Club, December 30, on the *Control of Cancer*.

DR. LEWIS S. PATTON, Athens, spoke before a meeting of the Woman's Auxiliary to the Clarke County Medical Society at the home of Mrs. H. H. Cobb on January 6.

DR. LOUIS SMITH, Lakeland, was in charge and directed a prenatal clinic at his office on January 6.

DR. S. C. KITCHEN, Louisville, Jefferson county commissioner of health, announces that the county will have a vastly improved county health department during 1939.

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall January 17. Dr. John M. Walton, Atlanta, assistant epidemiologist of the State Department of Public Health, spoke on *Epidemiology and Control of Endemic Typhus Fever*.



THE ATLANTA GRADUATE MEDICAL ASSEMBLY held its second annual assembly at the Biltmore Hotel, Atlanta, January 17-19. Physicians who presided over meetings during the assembly were: Dr. Frank K. Boland, Dr. R. H. Oppenheimer, Dr. Edgar G. Bal-lenger, Dr. N. M. Owensby, Dr. Edgar H. Greene, all of Atlanta; Dr. Grady N. Coker, Canton, president of the Medical Association of Georgia; Dr. T. F. Aber-crombie, Atlanta; Dr. Edgar D. Shanks, Atlanta, secretary-treasurer of the Medical Association of Georgia.

THE SIXTH ANNUAL SCIENTIFIC MEETING of the Georgia Pediatric Society was held at the Forest Hills Hotel at Augusta, on January 12. A three panel discussion followed the luncheon. Dr. Charles Hendee Smith, Professor of Pediatrics at New York University, read a paper on *The Diet of Infants and Young Chil-dren*. Dr. Alexis F. Hartmann, Professor of Pediatrics at Washington University, presented a paper on *Neph-ritis*. Dr. Thomas B. Cooley, Professor of Pediatrics at Wayne University, presented a paper on *Anemias of Infancy*.

AT A JOINT MEETING of the Richmond County Medical Society and the Pediatric Society the same evening, the guest speakers addressed the audience. Dr. Cooley spoke on *The Constitutional Anemias of Child-hood*; Dr. Hartman presented a report on *Some Physi-ological Effects of Sulfanilamide*, and Dr. Smith deliv-ered a paper on *Pneumonia*.

DR. WARREN GILBERT, Rome, has been elected to fellowship in the American College of Physicians.

DR. FRANK K. BOLAND, Atlanta, was a speaker on the program of the American College of Surgeons at Nashville, Tenn., January 18.

DR. J. M. BARNETT, Albany, was the principal speaker at the meeting of the Dougherty County Medi-cal Society on January 5. He stressed the need of more hospital facilities for Albany and Dougherty county with departments to care for different diseases.

DR. ROY R. KRACKE, Emory University, spoke before the meeting of the Sixth District Medical So-ciety at Macon, January 10, on *Pain Relieving Patent Medicines*.

DR. M. J. EGAN, Savannah, was elected president of the staff of St. Joseph Hospital, Savannah, and was in-stalled at the annual dinner of the staff on January 12; Dr. Harry M. Kandel, vice-president; Dr. H. H. Mc-Gee, secretary-treasurer.

DR. J. D. APPLEWHITE, Macon, discussed *Local Health Problems* at a meeting of the Union Home Demonstration Club, January 9.

ON JANUARY 16TH, the Dugas Journal Club held its regular monthly meeting at the University of Georgia School of Medicine, Augusta. Following a dinner at the Alumni Tavern, Dr. Charles Mulherin pre-sented a paper entitled, *Analysis of 500 Incomplete Abortions: Radical versus Conservative Treatment*. Dr Edward Cardwell gave a paper entitled *Syphilis of the Kidney*.

DR. J. R. GARNER, Atlanta, chief surgeon for the A. & W. P. R. R., Western Railway of Alabama, and Georgia Railroad, has been invited and will speak before a meeting of the Southern Safety Conference at Jackson, Miss., at its annual meeting to be held on February 16-17. The title of his address will be *Industrial Medicine for Large and Small Plants*.

DR. FRANK K. BOLAND, Atlanta, was re-elected chairman of the Atlanta Chapter of the Red Cross at its annual meeting on January 26.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on January 24. Dr. F. B. Brown read a paper en-titled *Treatment of Slipped Capital Femoral Epiphy-sis—Illustrated with Lantern Slides*; the discussion was led by Dr. H. T. Compton and Dr. H. H. Mc-Gee. Dr. Howard J. Morrison and Dr. Lawrence Lee reported a case, *Acute Appendicitis (Unruptured) in Eleven Months Old Baby*.

DR. G. LOMBARD KELLY, Augusta, dean of the University of Georgia School of Medicine, announced that the first number of the University Hospital Bul-letin has been printed and distributed. It will be pub-lished bi-monthly. Titles of articles published and writers were: *Recent Advancement in the Treatment of Facial Neuralgia*, by Dr. Frank Slaughter; *An Analysis of 500 Incomplete Abortions*, Dr. Charles M. Mulherin; *The Report of a Case of a Negro Suffering from One of the New Venereal Diseases*, Dr. Allen D. Smith, Dr. David Y. Hicks and Dr. Robert Dienst; *The Explanation of a New Method of Treating Ex-cessive Womb Bleeding*, Dr. R. B. Greenblatt, Dr. Richard Torpin, Dr. W. W. Coppedge and Dr. T. S. Gatewood; *Analysis of the Practical Treatment of Eye Cataracts*, Dr. R. E. Leonard. Plans may be arranged to distribute the Bulletin to all physicians in Georgia, Florida and South Carolina.

DR. L. P. HOLMES, Augusta, was re-elected direc-tor and secretary-treasurer of the Doctors and Dentists Bureau at Augusta. Dr. S. J. Lewis was elected to the board of directors.

DR. WALLACE L. BAZEMORE, Macon, studied at urologic clinics in New York City, January 9-14.

DR. A. M. PHILLIPS, Macon, has been appointed assistant medical director of the Bankers Health and Life Insurance Company of Macon. Dr. Charles L. Ridley has been medical director for fifteen years and will continue in that capacity.

DR. S. ROSS BROWN, Atlanta, with the venereal division of the State Department of Public Health, spoke before a meeting of the Woman's Auxiliary to the Fulton County Medical Society, January 13, on *Syphilis and Its Control*. He showed a motion picture entitled *Three Counties Against Syphilis*. Dr. Ed. H. Greene, Atlanta, president of the Fulton County Medi-cal Society, presided.

DR. Y. H. YARBROUGH, Milledgeville, member of the staff of the Milledgeville State Hospital, spoke be-fore a meeting of the Parent-Teacher Association at Midway on January 19.



DR. LINTON SMITH was elected president of the staff of the Crawford W. Long Memorial Hospital, Atlanta, on January 12.

DR. FRANK SLAUGHTER, Augusta, professor of neurosurgery at the University of Georgia School of Medicine, spoke at a luncheon of the Augusta Rotary Club, January 10, on *The United States Is the Mecca for Physicians Who Want to Study Neurosurgery*.

REPUTABLE PHYSICIAN with established practice wants an associate. Prefers one with two years hospital training. He wants a congenial, honest and cooperative doctor.

THE STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held on January 12. Mortalities discussed were: *Sub-Dural Hemorrhage (Autopsy)*, by Dr. W. L. Curtis; *Cerebral Hemorrhage and Prostatic Hypertrophy*, Dr. J. B. Crowley; *Pneumonia*, Dr. C. W. Daniels; *Pneumonia*, Dr. Trimble Johnson; *Tuberculosis*, Dr. Gordon Allison; *Hemorrhage from Hepatic Cirrhosis, or Gastric Carcinoma (Autopsy)*, Dr. P. L. Moon; cases not diagnosed, Dr. A. G. DeLoach and Dr. J. B. Baird.

DR. WM. H. MYERS, Savannah, spoke before a meeting of the Exchange Club at Hotel Savannah, January 23, on *Socialized Medicine*. He explained the difficulties which might be encountered and the inferior quality of medical service which could be expected.

DR. W. F. CASTELLOW, Americus, commissioner of health for Americus and Sumter county, was re-elected chairman of the Americus Institute of Citizenship.

DR. L. C. FISCHER, Atlanta, discussed *Group Hospitalization* before the Dougherty County Medical Society at its meeting held in Albany on January 13.

DR. F. B. BROWN, Savannah, attended the meeting of the American Orthopedic Surgeons held at Memphis, Tenn., January 16-20.

## COUNTIES REPORTING FOR 1939

### *Fulton County Medical Society*

The Fulton County Medical Society announces the following officers for 1939:

President—Edgar H. Greene, Atlanta.  
President-elect—C. E. Rushin, Atlanta.  
Vice-President—J. D. Martin, Jr., Atlanta.  
Secretary-Treasurer—M. T. Harrison, Atlanta.

### *Coffee County Medical Society*

The Coffee County Medical Society announces the following officers for 1939:

President—Dan A. Jardine, Douglas.  
Vice-President—D. A. Goldman, Douglas.  
Secretary-Treasurer—Roy L. Johnson, Douglas.  
Delegate—T. H. Clark, Douglas.  
Alternate Delegate—Sage Harper, Ambrose.  
Censors—J. W. Wallace and J. G. Crovatt.

### *Wilkes County Medical Society*

The Wilkes County Medical Society announces the following officers for 1939:

President—A. W. Simpson, Washington.  
Vice-President—L. R. Casteel, Metasville.  
Secretary-Treasurer—O. S. Wood, Washington.  
Delegate—Frank Gibson, Thomson.  
Alternate Delegate—C. E. Wills, Washington.  
Censors—H. L. Cheves and H. T. Harriss.

### *Douglas County Medical Society*

The Douglas County Medical Society announces the following officers for 1939:

President—R. E. Hamilton, Douglasville.  
Vice-President—C. V. Vansant, Douglasville.  
Secretary-Treasurer—Thos. B. Taylor, Douglasville.

### *Brooks County Medical Society*

The Brooks County Medical Society announces the following officers for 1939:

President—S. E. Sanchez, Barwick.  
Vice-President—J. R. McMichael, Quitman.  
Secretary-Treasurer—M. E. Groover, Quitman.  
Delegate—S. E. Sanchez, Barwick.  
Alternate Delegate—J. R. McMichael, Quitman.

### *Decatur-Seminole Counties Medical Society*

The Decatur-Seminole Counties Medical Society announces the following officers for 1939:

President—H. B. Jenkins, Donalsonville.  
Vice-President—L. W. Willis, Bainbridge.  
Secretary-Treasurer—M. A. Ehrlich, Bainbridge.  
Delegate—Gordon Chason, Bainbridge.  
Alternate Delegate—Thomas Chason, Donalsonville.

### *Emanuel County Medical Society*

The Emanuel County Medical Society announces the following officers for 1939:

President—J. H. Chandler, Swainsboro.  
Vice-President—D. D. Smith, Swainsboro.  
Secretary-Treasurer—N. M. Akers, Swainsboro.  
Delegate—R. C. Franklin, Swainsboro.  
Alternate Delegate—N. M. Akers, Swainsboro.

### *Cherokee-Pickens Counties Medical Society*

The Cherokee-Pickens Counties Medical Society announces the following officers for 1939:

President—Geo. C. Brooke, Canton.  
Vice-President—J. R. Boring, Canton.  
Secretary-Treasurer—Chas. R. Andrews, Jr., Canton.  
Delegate—C. J. Roper, Jasper.  
Alternate Delegate—J. P. Turk, Nelson.

### *Henry County Medical Society*

The Henry County Medical Society announces the following officers for 1939:

President—H. C. Ellis, McDonough.  
Vice-President—R. L. Crawford, Locust Grove.  
Secretary-Treasurer—E. G. Colvin, Locust Grove.  
Delegate—Robert V. Brandon, McDonough.

### *Hancock County Medical Society*

The Hancock County Medical Society announces the following officers for 1939:

President—Horace Darden, Sparta.

Secretary-Treasurer—H. L. Earl, Sparta.  
 Delegate—C. S. Jernigan, Sparta.  
 Alternate Delegate—H. L. Earl, Sparta.

*Talbot County Medical Society*

The Talbot County Medical Society announces the following officers for 1939:

President—J. E. Peeler, Woodland.  
 Secretary-Treasurer—W. P. Leonard, Talbotton.  
 Delegate—G. L. Carter, Talbotton.

*Taylor County Medical Society*

The Taylor County Medical Society announces the following officers for 1939:

President—F. H. Sams, Reynolds.  
 Vice-President—S. H. Bryan, Reynolds.  
 Secretary-Treasurer—R. C. Montgomery, Butler.  
 Delegate—S. H. Bryan, Reynolds.

OBITUARY

*Dr. David Wells Register*, Atlanta; member; Emory University School of Medicine, Emory University, 1914; aged 52; died suddenly in his automobile on a highway near Columbia, S. C., on December 22, 1938. He had been in Ridgewood Sanatorium taking treatment for a couple of weeks just before his death.

*Dr. Gustaf Hugo Johnson*, Savannah; member; Long Island College of Medicine, Brooklyn, New York, 1898; aged 67; died suddenly of heart disease in his office on December 28, 1939. He was born in Chester, Pennsylvania, of Swedish parents and moved to Savannah when a child. He received his literary education at the Chatham Academy. Immediately after he began the practice of medicine, he was elected Savannah health officer. Dr. Johnson served on the staffs of Savannah hospitals from time to time and at the time of his death was on the staff of the Warren A. Candler Hospital. He served as captain in the medical corps of the United States Army during the World War. Dr. Johnson was elected coroner for Chatham county in 1924 and held the office continuously until his death. He possessed an affable disposition and had many friends. He was a member of the Georgia Medical Society and the American Medical Association. Surviving him are his widow, one son, Dr. G. H. Johnson, Jr. Dr. Samuel McP. Glasgow officiated at the funeral service conducted from the residence. Burial was in Bonaventure cemetery.

*Dr. Raymond Reed Roberts*, Lawrenceville; Emory University School of Medicine, Emory University, 1922; aged 43; died on January 6, 1939, at the home of his sister in Atlanta. He was a native of Gwinnett county. He had been in ill health for several years. He was at one time professor of pediatrics at Tulane University School of Medicine, New Orleans, La. Surviving him are three sisters, Mrs. H. B. Leatherwood, Atlanta; Mrs. J. B. Dunagan and Miss Annie Lyle Roberts, both of Grayson. Funeral services were conducted from the First Baptist Church of Lawrenceville. Burial was in Chestnut Grove cemetery at Grayson.

NINETIETH ANNUAL SESSION

*Medical Association of Georgia*

*To the Members of the  
 Medical Association of Georgia:*

The members of Fulton County Medical Society and the medical profession of Atlanta will be hosts this year to the ninetieth annual session of the Medical Association of Georgia.

To the members of the medical profession of the State this meeting should be the most important medical meeting which they attend. It is at this meeting where we see our confreres year after year, where we learn from each other, where we meet to discuss the economic problems, the legislative questions and all matters which affect us in our daily practice. We should be more interested in this than any other organization because it is through our united activities in this organization that the medical profession in Georgia advances, that the public health of Georgia is promoted and that we hear the experiences of others in the use of new treatments and research. It is this group who can decide legislative matters which we need and which the citizens of our state need.

The Medical Association of Georgia is a thoroughly democratic one. It is organized to serve and execute the decision of its members. It is for this reason it has a House of Delegates which meets the day prior to the meeting. We hope there will be a large attendance of the delegates and that they will take a thoroughly conscientious interest in the questions brought before them, because never before in the history of medicine has there been more urgent need for close study of these problems by representative members. This should increase our attendance and interest in the affairs of the Association.

The dates are APRIL 25-28. The sessions will be held at the Atlanta Biltmore Hotel. Our plans are laid to make every moment of the convention full of interest and enjoyment. We'll be looking for you.

FULTON COUNTY MEDICAL SOCIETY



# ALLEN'S INVALID HOME *Milledgeville, Ga.*

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FOR NERVOUS AND MENTAL DISEASES

• H. D. ALLEN, M.D., PHYSICIAN IN CHARGE  
DEPARTMENT FOR WOMEN

## SOUTHEASTERN SURGICAL CONGRESS TENTH ANNIVERSARY ASSEMBLY

The Southeastern Surgical Congress announces the Tenth Anniversary Post-Graduate Surgical Assembly to be held in Atlanta, March 6, 7 and 8, 1939, at the Biltmore Hotel.

The Congress was organized in Atlanta ten years ago. It includes ten southeastern states and has a membership of more than five hundred. The annual assemblies have alternated throughout the various states and the congress now returns to Atlanta for its tenth birthday. The annual attendance has increased yearly and this year we are expecting the largest crowd yet.

The program committee has arranged an unusually attractive program, and the nation's outstanding surgeons and teachers will speak. The scientific exhibit will be well worth seeing and there will be a continuous moving picture exhibit of the various surgical operations and procedures.

These assemblies are primarily to encourage better surgery throughout the Southeast, and all physicians are invited to attend.

The officers are: T. C. Davison, M.D., Atlanta, President; R. L. Sanders, M.D., Memphis, Tenn., President-elect; E. L. Henderson, M.D., Louisville, Ky., Vice-President; B. T. Beasley, M.D., Atlanta, Secretary and Treasurer.

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## BOOK REVIEW

*Anus Rectum, Sigmoid Colon — Diagnosis and Treatment.* By Harry Ellicott Bacon, M.D., Assistant Professor of Proctology, Temple University School of Medicine; Assistant Professor of Proctology, Graduate School of Medicine, University of Pennsylvania; Visiting roctologist, St. Luke's and Children's Hospital; Proctologist, National Stomach Hospital; Consultant Proctologist, Mercy Hospital; Assistant Surgeon, Radiologic Department, Philadelphia General Hospital; Co-Founder and Past President, Proctologic Society Graduate Hospital, University of Pennsylvania.

Introduction by W. Wayne Babcock, M.D., Professor of Surgery, Temple University School of Medicine.

Foreword by J. P. Lockhart-Mummery, M.A., M.B., B.C. (Cantab), F.R.C.S. (Eng.), Emeritus Surgeon, St. Mark's Hospital, London, England. 478 Illustrations. By William Brown McNett. J. B. Lippincott Company.

To his father, the late professor of operative surgery, Temple University Medical School, and a beloved professor, Dr. Collier Ford Martin of the University of Pennsylvania, Dr. Bacon indeed pays a fitting tribute with this book. As indicated in the foreword, it is a manuscript of encyclopedic nature. Obviously Dr. Bacon is a man of infinite patience and a true scientist with many years of practical study and observation which have been corralled into this masterpiece.

This publication is one which might well be used both for textbook and reference. It is surprising how

much information has been gathered on this subject, yet it would seem that all had been applied in one volume. The author carries you from embryology to the octogenarian decay with all the intermediate stages, both pathologic and normal. With all the information gleaned from the proctologic satellites of the four corners of the earth described, toned down and balanced by the experience of an unbiased specialist, it is well expressed and most interesting for one inquiring into this field.

With illustrations, plates and charts, most of which are original, the book is well illuminated. There are contained facts of interest for the detail research mind, the quick reference of the general practitioner, the general surgeon and last, but not least, for the practitioner. Of particular interest are the sections on the more common ailments encountered around the anus and rectum, and on malignancies—their description, diagnosis and treatment. We are fortunate to have a book of this caliber available for our library.

CHARLES R. ANDREWS, JR., M.D.

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Vol. XXVIII

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Number 3

## HISTORICAL SKETCH OF ATLANTA\*

EDGAR H. GREENE, M.D.  
*Atlanta*

Atlanta is one hundred and two years old. The birth of the city and its extraordinary rise to the command of southeastern commerce, finance, and industry are due to the formative work of nature, to the scientific knowledge of railway engineering and to the deep and fervent pride that the average Atlantan shows in his city.

Atlanta measures its length and breadth along a ridge that forms the dividing line between the Atlantic Ocean and the Gulf of Mexico. It is to this ridge, which at this point rises more than a thousand feet above the sea, that Atlanta attributes, in large measure, its remarkable freedom from disease. The elevation affords perfect drainage and a bracing atmosphere. Not only is this ridge responsible for Atlanta's healthy climate, but in a way it is responsible for the city's very existence. It was the topography of the land that led chief engineer Stephen H. Long, authorized by the Legislature in 1836, to select in 1837 a point on this ridge as the terminus of the connecting railroad between the Tennessee and Chattahoochee rivers. He named the place Terminus which is usually thought to be Atlanta's first name, but actually the first name given this community by Charner Humphries was Whitehall. Humphries built the "Whitehall Inn" on a plot now bounded by Whitehall, Lee, Oak and Zachry streets. He named the Inn and the community for that famous part of London—Whitehall.

At that time a solitary log cabin built by Hardy Ivy occupied the site of the future city. (Hardy Ivy was the father of the first boy born in Atlanta. Mr. and Mrs. Willis Carlisle were the parents of the first girl.)

\*Extracts from the bibliography, particularly the work of Mr. Allen, the Historical Edition of The Atlanta Constitution, Aug. 8, 1936, and Mr. Hornady, have been liberally used in preparing this sketch.

The name "Terminus" was changed in 1843 to Marthasville. This new name was in honor of Martha Lumpkin. Her father, Governor Wilson Lumpkin, had aided in the construction of the Western and Atlantic Railroad. The year 1845 brought the name Atlanta. Some controversy has existed concerning the origin of the name which is understood to have been proposed by J. Edgar Thompson, at that time chief engineer of the Georgia Railroad. Some claim it was named for Atalanta, the mythological goddess of strength, beauty and endurance; others maintain the name was coined by Thompson. About this time the old records point with pride and appreciation to the arrival of Dr. Joshua Gilbert, the first doctor of the community. Sharing honors with the first doctor was the first newspaper, *The Luminary*, the first church and the first school. Two years later the first bank was established, and in 1851 the first volunteer fire department was organized.

The citizens of this six-year-old community sent a committee to Milledgeville to seek the State Capitol. This committee bought the present capital site, built a city hall and took \$100,000 worth of railroad stock and established a board of health.

Ten years after the community became Atlanta, its population had increased from a few scattered families to 11,500 townspeople. In 1854 the city was lighted by gas, the first medical college was established, there were 57 stores, not counting the saloons; 13 churches, and 4 hotels.

Although many other cities were older, Atlanta figured prominently in the pre-war campaigns and conferences of 1860-1861. General Braxton Bragg established martial law in the city on August 11, 1862. Atlanta immediately became a manufacturing center for arms and equipment. A depot was established where food, clothing and ammunition were stored subject to requisition for



Atlanta Medical College, 1892, Atlanta



Southern Medical College, 1892, Atlanta

battle needs. When the Federal army gradually forced the Confederates to the south, the Atlanta Medical College was turned into a hospital for the care and treatment of the sick and wounded. The Atlanta campaign was of paramount importance to the success of both armies. The capture and destruction of the city was tragic but emphasized the importance of Atlanta in the eyes of military leaders. Few acts in military history have surpassed the cruelty of General Sherman's looting and burning of a city already severely stricken and shell-shocked.

Critically wounded by the war and facing a period of political indignities, Atlanta nevertheless turned to rebuilding the city with a remarkable spirit. This spirit was described twenty years later by Henry Grady in a beautiful word picture of the returning Confederate soldier, which he concluded with this statement:

"I want to say to General Sherman that from the ashes he left us in 1864, we have raised a brave and beautiful city; that somehow or other we have caught the sunshine in the bricks and mortar of our homes and have builded therein not one ignoble prejudice or memory."

Despite political trouble Atlanta was growing and increasing in power even faster than it did in the years just before the war. Atlanta was leading the South and her great Senator, Benjamin Harvey Hill, inspired the people with new hope and pointed the way to the real rebuilding of the South in a masterful speech at Athens in 1871. It heartened the people and lighted the path of reconstruction so brilliantly and so powerfully that the whole Southeast took a new start. Among other things in that speech, the fol-

lowing statement gives the impression of prophetic inspiration:

"If this generation of our educated men will now bestir themselves, we shall soon find that only our fetters have broken, and the day of unequaled greatness and prosperity will dawn and brighten to glorious and lasting noon in the South."

In the year 1872 the public school system was inaugurated. The city's wide enthusiasm over its greatest institution seemed to hail the glorious period just ahead. In fact, the years from 1870 to 1880 saw the greatest progress in the city's history. A system supplying the city with water was installed at a cost of approximately \$500,000. A street railway was installed by George W. Adair and Richard Peters. H. I. Kimball built the hotel that bears his name and which was destined to become the center of social and political history. The DeGue's Opera House had opened. There were many new buildings on Pryor Street and new churches and palatial homes were being built on the fringes of the city.

Doubtless the most important event of the 1870 to 1880 period came in 1877 when Atlanta was made capital of Georgia. Atlanta took one of her first definite steps toward industrialism with the Cotton Exposition of 1881; followed by the Piedmont Exposition in 1887, which was attended by Grover Cleveland. From the experiences gained by these ventures, Atlantans staged in 1895 the Cotton States and International Exposition. This was considered the city's greatest public enterprise. Both Cleveland and McKinley attended this exposition. (In mentioning notable visitors of the early post-war era it is of interest to note that Hayes came to Atlanta in the late 1870's.) The presence





Atlanta School of Medicine, 1908, Atlanta



Atlanta Medical College, 1915, Atlanta

of 700 manufacturing industries established Atlanta as the leading industrial and manufacturing city of the South.

In 1892 Grady Hospital had been completed at a cost of \$100,000, raised chiefly by private subscription. From 1896 to 1900, \$2,367,303 were spent for dwellings. At the same time several hotels and public buildings gave height to Atlanta's skyline.

With the turn of the century Atlanta entered such a rapid period of development that each succeeding year left sections of the city with new parks, schools, viaducts, highways and imposing public buildings. By this time practically all of her railroads were completed and she has since become their headquarters.

Three times since then, in 1910, 1921 and 1925 citizens have voted bonds totaling more than twenty millions of dollars, used for an extension of the waterworks, schools, hospitals, homes for the aged, sewage disposal plants, sewers, three viaducts and a city hall. In 1910, two years after the erection of an auditorium-armory, the Metropolitan Opera Company came to Atlanta for its first season. No other municipality, other than New York, had undertaken such a venture.

Following our entry into the World War in 1917, the city obtained 1,500 acres of land about fifteen miles north of the center of the city, laid a water main to the property and the War Department established, at a cost of several million dollars, a great cantonment known as Camp Gordon. Thousands of boys from various sections of the nation were trained at this camp and at Camp Jesup on the Fort McPherson reservation. Several hun-

dred members of the Medical Association of Georgia served in these camps. The Emory Unit (Base Hospital 43), organized by the late Dr. Edward C. Davis, former president of the Medical Association of Georgia, and officered by members of the faculty of Emory University School of Medicine, was mobilized at Camp Gordon about two months before its departure for service in France. The nurse personnel of the unit was made up largely of ladies from Atlanta hospitals, and the enlisted men came from various sections of Georgia and neighboring states.

The 82nd Division was organized and trained at Camp Gordon and during the war days the population of the camp often exceeded 35,000 men. The Fifth Georgia Regiment of National Guard troops, Atlanta's own, returned to its home following the war to continue as an active and flourishing military organization, now known as the 122nd Infantry.

The impressive lessons learned from war-torn Atlanta in 1865 and devastated areas on the western front in 1918 have made our citizenry conscious of the value of preparedness for war and other emergencies. In the other days those who found themselves suddenly catapulted into war with little training, hope their sons and the sons of others may never have to go to war, but if war should come, the value of military training in peace time, now appreciated by the veteran, will then bring forth thanks from the soldier of tomorrow. Practically all Atlanta and Fulton County high schools and preparatory colleges have military training and the Georgia School of Technology has an excellent



Grady Memorial Hospital, 1892, Atlanta



Grady Memorial Hospital, 1914, Atlanta

military and naval R.O.T.C., and is preparing for the early establishment of a military unit in connection with the Department of Aeronautics.

Some 150 members of the Fulton County Medical Society were in the service in 1917 and 1918 and an equally large number are now reserve medical officers in some branch of the service.

From 1925 to 1930 the Chamber of Commerce promoted a million dollar advertising campaign, "The Forward Atlanta Movement." It is estimated that 792 concerns with payrolls aggregating \$34,500,000 came here as a result of that movement. In 1929 Candler Field was purchased and Atlanta became a great hub of aviation, with lines operating to metropolitan cities of the East, South and Midwest. More than 1,800 nationally known concerns have branches here for manufacturing or for warehousing and distributing purposes. Atlanta has 3,786 retail and 642 wholesale stores.

She is the base of federal activities in the Southeast. There are more than 37 permanent government divisions which employ nearly 5,000 persons. Among the larger federal organizations are the Federal Reserve Bank, Fourth Corps Area Headquarters, Federal Penitentiary and Fort McPherson. Atlanta is the railroad center of the South: 102 passenger trains arrive each day, while more than 500 merchandise and package cars leave over 15 lines. The express company (recent union of Railway and Southeastern Express) handles more than 4,850 cars a month.

There are 142 busses a day and 72 regulated truck lines which serve the city in addition to the hundreds of unscheduled trucks.

Atlanta is the largest telephone center in the South and the third largest in the world. Atlanta is the leading parcel post distributing point in this region.

Atlanta is the heart of the great cotton belt and more than 1,400 commodities are manufactured by her 762 factories. The value of her products is said to be over \$65,000,000 annually.

Atlanta is the third largest insurance center in the world.

It has scores of large drygoods and furnishing houses and is the largest millinery center in the Southeast.

It has three daily papers and many other publications and is the photo-engraving center of the South.

It is the home of the Coca-Cola Company, the largest soft drink concern in this country.

It is the home of many of the South's leading colleges for men and women, among which are Emory University with its excellent medical school, Georgia School of Technology, Oglethorpe University and Agnes Scott College, nearby.

In addition, Atlanta has more institutions of higher learning for negroes than any other city in the world.

It has 350 churches, with more than 100,000 members, representing 20 denominations. In the community are numerous civic and fraternal organizations including 30 Masonic lodges and a Shrine temple.

It has 18 registered hospitals, sanatoriums and clinics with a flourishing county medical society, sponsoring the work in this progressive medical center.

It has ten banks and trust companies, three of which are national banks. Atlanta has ap-



proximately 70,000 homes and more than 20 hotels and enjoys a reputation as an ideal convention city.

It has 71 parks, 14 golf courses and 32 theaters. Atlanta has 54 elementary, 9 junior high, and 5 senior high schools.

Modern busses are gradually replacing the old street cars and traffic is being safely and sanely handled by an efficient police department.

Atlanta is served with natural gas and the city owns its huge waterworks.

It is the automobile center of the South, and is the second largest mule market in the world.

It is recognized as the office building center of the country and, based on proportionate population, is outranked only by San Francisco.

Atlanta abounds in points of interest, including the home of Uncle Remus, Cyclo-rama — painting of the Battle of Atlanta, relics of the War Between the States; Stone Mountain nearby, and hundreds of palatial homes and formal gardens.

Situated near the foothills of the Blue Ridge mountains, and bordered on the north by the Chattahoochee River, Atlanta has the greatest altitude of any city of its size in this country except Denver. Its heavily-wooded sections, resplendent with brilliant flowers and foliage in spring and summer, and tinted with the changing shades of autumn leaves, as if touched by the wand of an invisible magician, cause the visitor and native alike to feel that this busy metropolis is surrounded by a veritable fairyland of natural beauty.

Yet, all these facts merely touch the edges of Atlanta's story and point out how Atlantans of today will take progressive strides in business, education, art, religion, public health, transportation, communication, government, civic affairs and countless other things which will make this city's future even greater than her past.

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## SKETCH OF EARLY ATLANTA MEDICINE

FRANK K. BOLAND, M.D.

*Atlanta*

From the opening chapter of "Makers of Atlanta Medicine," a series of articles written by Dr. J. L. Campbell for the Fulton County Medical Society Bulletin in 1929, we are informed that the first physician to locate in the territory now known as Fulton County was Dr. William Gilbert, grandfather of Dr. W. L. Gilbert, former county commissioner, and at present a member of the Fulton County Medical Society. The elder Gilbert moved from South Carolina about 1829 and settled on the Campbellton road, to serve the thinly populated sections around old Utoy, Mount Gilliad and Mount Zion churches. Just before the Civil War he moved to Atlanta and formed a partnership with his brother, Dr. Joshua Gilbert.

In Martin's "Atlanta and Its Builders," Dr. Joshua Gilbert is named by Dr. George G. Smith as Atlanta's first physician, who located here in 1845. It is interesting to note that Dr. Gilbert and Crawford W. Long, the discoverer of anesthesia, were born the same year, 1815, and Long is known to have resided in Atlanta for one year, 1850. There is no doubt that several doctors lived in the future metropolis before 1850, although as late as 1842 Dr. Campbell says it was necessary to go to Decatur or Marietta for a doctor. The earliest settlement in what is now Atlanta was made in 1836. The place was first called Terminus from the fact that it was the termination of the proposed railroads from Augusta and Chattanooga. In 1843 the name was changed to Marthasville, and in 1845 to Atlanta, and in 1847 the town was chartered as the City of Atlanta.

Dr. George Smith, who became postmaster at Atlanta in 1851, declared that Dr. Josh Gilbert was the leading physician of the new city, certainly the most popular. He rode horseback and carried a whistle with him with which he made his presence known as he galloped his steed through the dusty or muddy streets. He kept no books, collected no accounts, and according to Dr. Smith, "paid no debts." How could he? The peo-



ple said Josh Gilbert was a "natural born doctor," and he was a universal favorite. He died in 1889, and is buried in the church yard at Utoy. On Sept. 17, 1932, the 117th birthday of Dr. Gilbert was celebrated at the grave, and a wreath placed by the Fulton County Medical Society.

To the Atlanta Medical Fee Bill and Code of Ethics, dated May 25, 1854, are signed the names of fourteen forefathers of medicine in Atlanta:

N. D'Alvigny, M.D.  
 Jas. F. Alexander, M.D.  
 H. A. Ramsay, M.D.  
 Josiah A. Flournoy, M.D.  
 T. C. H. Wilson, M.D.  
 Joshua Gilbert, M.D.  
 N. L. Angier, M.D.  
 Hayden Coe, M.D.  
 J. G. Westmoreland, M.D.  
 W. T. Grant, M.D.  
 B. M. Smith, M.D.  
 Thos. Denny, M.D.  
 H. Westmoreland, M.D.  
 J. M. Darnall, M.D.

From this time-stained Fee Bill it is learned that the price of a visit in the city in the day was \$1.00, and at night was \$2.00. This sounds reasonable enough, and critics of the profession today make much of it, and wish they could have lived in such "good old days." But when it is added that mileage in the day was charged at fifty cents per mile, and at night at \$1.00 per mile, making a night call from Atlanta to College Park amount to \$10.00 or \$12.00, in this case there is no difference in the cost of medical care between 1854 and 1938, especially when the increase in living expenses is considered. The cost of vaginal examination "with the finger" was \$2.00 to \$3.00, "with the speculum," \$5.00 to \$10.00; amputation at hip-joint, \$100.00 to \$200.00; natural labor, \$10.00, difficult labor, \$15.00 to \$40.00, instrumental delivery, \$25.00 to \$50.00.

#### *The Fulton County Medical Society*

The first medical society in Fulton County was organized in 1855, the year of the beginning of the Atlanta Medical College and the Atlanta Medical and Surgical Journal. At this time the *Journal* was owned and published by the faculty of the college, but later

it passed into private hands. Many facts concerning the early history of the society are obtained from a paper on the subject read before the assembly in 1922 by Dr. James B. Baird, and from a similar paper read in 1931 by Dr. W. S. Goldsmith. According to Dr. Baird, the original name of the body was the Brotherhood of Physicians, and its membership was composed largely of the resident faculty of the medical school. On the first faculty of the Atlanta Medical College were several members who lived at a distance from the city. The Brotherhood of Physicians soon was succeeded by the Atlanta Medical Society, however, since the organization is known to have borne that title in 1857.

Dr. John G. Westmoreland founded the Brotherhood of Physicians, and started the medical college, while with his brother, Dr. W. F. Westmoreland, Sr., he established the *Atlanta Medical and Surgical Journal*. The first president of the medical society is not known, but Dr. Goldsmith believes the honor was held by Dr. J. P. Logan. The names of all the presidents before 1865 have been lost, but among those who seemed to be most active in the affairs of the pioneer association, in addition to Dr. Logan and the two Westmorelands, were Drs. Jas. F. Alexander, N. L. Angier, John M. Boring, Jesse Boring, John C. Calhoun, Noel D'Alvigny, Joshua Gilbert, Eli Griffin, W. P. Harden, Eben Hillyer, J. M. Johnson, R. J. Massey, Alexander Means, D. C. O'Keefe and S. H. Stout. From 1861 to 1865, the period of the Civil War, many of these men gave their services to the Confederacy, as soldiers or as military surgeons, and the meetings of the society were discontinued, to be resumed in the latter year, under the name of the Atlanta Society of Medicine.

Quoting from Dr. Goldsmith's interesting article, "When the hectic days of 1866 arrived, the rebuilding of the stricken city, with the attendant disorder, due to the presence of a horde of camp followers and irresponsible Negro population, brought a large number of charlatans and irregular practitioners to prey upon a class already debauched in an orgy of dissoluteness. Amidst such scenes the Atlanta Society of Medicine stood steadfast, and



Tabernacle Infirmary, 1912 (Across Street from College)  
Atlanta

strove to protect the public and rid the city of these undesirable elements."

From 1866 to 1871 organized medicine in Atlanta apparently passed through difficult and deplorable times, so that the existence of the society was endangered, and peace in the parent State Medical Association was seriously disturbed. No minutes of the Atlanta Society of Medicine for this period have been preserved, but the story is told in "A Statement of Facts Concerning the Controversy Between the Faculty of the Atlanta Medical College and Certain Members of the Medical Association of Georgia," published in the *Atlanta Medical and Surgical Journal*, May, 1871. During these five years the "certain members" referred to conducted a rival association, the first Fulton County Medical Society, the minutes of which recently were discovered in the archives of the present society of the same name. These minutes, however, fail to present the side of those who were antagonistic to the members of the faculty of the medical school.

No answer to the "Statement of Facts" appears in any subsequent issue of the *Journal*, so it is inferred that this recital is correct, and met with the approval of the parties concerned, especially since harmony soon followed, and the two societies consolidated the next year, 1872, under the significant designation of the Atlanta Medical and Surgical Union.

From the statement mentioned above we learn that in 1866 two members of the faculty of the Atlanta Medical College, Dr.

Thomas S. Powell and Dr. George G. Crawford, were expelled, the former for his connection with the "Ladies' Home," an institution accused of being conducted in an unethical manner, and the latter for being "incompetent and unfaithful." In retaliation for this act, these two gentlemen and their families charged that the government of the medical school was irregular, and not in accord with the tenets of proper medical education, and instead of electing the members of the faculty itself, allowed the faculty to elect its own members. Later it was alleged that in a memorial to the General Assembly, asking for funds, the college authorities attacked the Medical Association of Georgia, an accusation which subsequently was proved to be untrue. At any rate, the zeal of the enemies of the school was so effective that in 1870, at the meeting of the Association in Macon, the names of the faculty members were stricken from the roll, to be reinstated the next year at the annual meeting in Americus.

The minutes of the "hybrid" Fulton County Medical Society are preserved from its inaugural gathering, April 2, 1866, to August 23, 1870, although the body may have continued to a later date, since the Atlanta Medical and Surgical Union was not created until 1872. Among the seventeen names associated with the Fulton County Society occur those of Drs. George G. Crawford, W. T. Goldsmith, W. C. Moore, L. H. Orme, Charles Pinckney, T. S. Powell, Edwin S. Ray and E. J. Roach. The minutes show that the organization was loath to abandon its name of Fulton County in becoming a part of the Atlanta Medical and Surgical Union, but finally agreed to the change in the title. The new designation lasted but one year, until 1873, when the united aggregation became the Atlanta Academy of Medicine, and in 1905 the name of the Fulton County Medical Society was adopted, and the organization became an integral part of the Medical Association of Georgia.

One of the most important events in the history of the Atlanta Academy of Medicine was its entertainment of the thirtieth annual session of the American Medical Association





Piedmont Hospital, Atlanta

in Atlanta in May, 1879, described in the Transactions of the Association for 1879, volume 30. Both were small organizations in those days so that it was not inconceivable for a local society of less than fifty members in a town of 35,000 people to take care of a few hundred visitors. However, the fact that the medical profession of the "Gate City of the South" accomplished this feat successfully shows that even sixty years ago Atlanta doctors, imbued with the "Atlanta Spirit," possessed the energy and enterprise to attempt big affairs. The meetings of the Association were held in DeGive's Opera House, on Marietta Street, a new theater which then was considered one of the largest and finest in the country. Dr. Theophilus Parvin, of Indiana, was president. Fortunately no large space was required for exhibits. A memorable incident was the welcoming speech of Dr. J. P. Logan, of the local society. The reconstruction days following the Civil War were scarcely over, and there was much to be said about peace and brotherly love, and Dr. Logan made the best of it. His effort rivaled the eloquence of Atlanta's premier orator, Henry W. Grady, who then was rapidly approaching the peak of his brilliant career.

With the coming of the eighties and nine-

ties appeared a younger generation of doctors who were destined to achieve conspicuous success in their practice, and make notable contributions to medical education and literature. The "germ theory" was just coming into its own in actual practice in medicine and surgery, and heated were the debates over bacteria and antiseptic surgery in the gatherings of the Atlanta Society of Medicine. Among the new leaders of those decades we observe Drs. W. S. Armstrong, J. S. Todd, A. W. Calhoun, J. B. Baird, W. S. Elkin, J. McFadden Gaston, Virgil O. Hardon, Hunter P. Cooper, W. P. Nicolson, F. W. McRae, W. S. Kendrick, George H. Noble and others equally prominent and useful.

In May, 1896, the society again acted host to the American Medical Association, this occasion being the forty-seventh annual session, described in volume 26 of the *Journal* of the Association. Meetings took place in the Grand Opera House, another new and handsome theater. R. Beverly Cole, of California, was president. One of the memorable features was a Georgia barbecue, photographs of which appear in the *Journal*.

For thirty-eight years, from 1873 to 1905, the minutes of the medical societies of Fulton County are missing, an irreparable loss. Dr. Goldsmith states that when he became a member, in 1893, meetings were held in a





Georgia Baptist Hospital, Atlanta

large office room in the State Capitol Building, Marietta and Forsyth streets, now the site of the Western Union Building. At the first meeting attended by Dr. Goldsmith the paper of the evening was on "Gonorrhea in the Male," by Dr. Floyd W. McRae. As this disease was treated by all present a warm discussion ensued, lasting more than two hours. Later in the same year the society moved to the old Y.M.C.A. Building, now the Chamber of Commerce, Pryor Street and Auburn Avenue. Rent was \$10 per month, "including the use of the piano," a clause inserted in the contract by the landlord. The instrument was never used, says Dr. Goldsmith, except as a receptacle for hats and coats.

The society had a hard time during the "gay nineties" finding a resting place. In 1896 the Knights of Pythias hall in the old Connally Building, Whitehall and Alabama streets, became its home, at a rental of \$7 per month. Only a few members ever paid the annual dues of three dollars, so that in 1897 the organization found itself without any funds, and secured a vacant room in the Equitable Building, now the Trust Company of Georgia Building, rent free. Chairs were borrowed from adjoining offices. In a few months the room was rented to a pay tenant, and the society secured other free quarters in one of the parlors of the Kimball House. Here the sessions were held until 1899 when Drs. E. C. Davis and L. C. Fischer opened their commodious offices to the meetings. These offices were in the Flat-iron Building, now the Georgia Savings Bank

Building, Peachtree and Broad Streets. There have never been but a very few women to practice medicine in Fulton County, but at this time Dr. Katherine Collins was first vice-president of the society, the only woman ever to hold an office in the history of the organization.

After enjoying the hospitality of Drs. Davis and Fischer for three years, in 1902 the basement of the Carnegie Library was chosen for the assembly room and thus used until 1915. At this time the society began to prosper, and excellent meetings were being held. The Carnegie Library hall supplied the best meeting place in the history of the society to this time, and was succeeded in 1915 by another one equally as good, in the Chamber of Commerce Building.

For many years the matter of purchasing a permanent home for the society had been discussed among the members, and became a reality in 1923 when the large frame dwelling of W. Woods White, at 38 Prescott Street (then Howard Street), was bought and converted into a meeting place and library. Three rooms on the first floor were thrown together to provide an assembly hall seating two hundred. Space was provided for an office, library and kitchen. The Woman's Auxiliary of the society, organized in 1923, has made good use of the kitchen in furnishing suppers for many occasions, both for local and nation-wide meetings. At the present time (1938) the building is known as the Academy of Medicine, and houses not only the medical society, but also the local dental society, and furnishes offices for the

Medical Association of Georgia and the Medical Service Bureau (organized to furnish by monthly payments medical service to patients in the low income group).

#### *Medical Education in Atlanta*

"The Founding and the Early History of the Atlanta Medical College (1854-1875)" is the title of a most entertaining and instructive paper written by Dr. Phinizy Calhoun, and published in the Georgia Historical Quarterly, March 1925 (vol. ix, no. i). For complete information reference should be made to this article from which many of the following facts are drawn. It seems an audacious thing that Dr. John G. Westmoreland should have conceived the idea of organizing a medical college in a town the size of Atlanta in 1853, with the thinly settled country which surrounded it, but it was only another evidence of the spirit which was to make the city famous. At the same time it must be granted that about all the equipment required to conduct a medical institution of learning in those days was a lecture hall, and possibly a dissecting room, although the latter was not always in use because there was no regulated legal method for securing anatomic material. It has been claimed, though not admitted, that bodies were obtained surreptitiously. As evidence of the difficulty of maintaining such a school in a town so small, five of the original members of the first faculty of eight professors lived outside of Atlanta, and gave their addresses as New York City, Auburn, Ala., Savannah, Newnan and LaGrange, Ga. Membership in the faculty, however, soon became limited to Atlanta doctors, although several years later, Dr. Asa Griggs, of West Point, Georgia (after whom the distinguished Atlanta citizen, Asa G. Candler was named), held a position on the teaching staff.

The Atlanta Medical College was organized in 1854, but did not begin actual operation until 1855. The first year's lectures were given in the new City Hall which occupied the present location of the State Capitol. This building presented many new and modern features in architectural construction, which then attracted much attention, chief of which was that large windows were placed at each side of the Council Chamber and the window sashes were hung with weights to

slide up and down. The enterprising, alert Dr. Westmoreland at once laid plans to erect a college building. He succeeded in having himself elected to the State Legislature for the sole purpose of securing \$15,000 toward the consummation of this object. In return the medical school agreed to educate free one student from every congressional district of the State. The building, located upon the present site of the colored division of the Grady Hospital, was completed in time to house the second session of the college. John G. Westmoreland was a remarkable man in several respects. He was dean of the medical school for forty years, and donated to it much time and money. It is related that he sold \$100,000 worth of Atlanta real estate at the beginning of the War Between the States, lending the entire amount to the Confederacy, which of course was lost. He did not believe that yellow fever was contagious, and it was reported that he slept with yellow fever patients in order to prove his contention. In an article, "Atlanta As It Is," published in 1871 by Dr. John Stainback Wilson, Dr. Westmoreland is quoted as stating that in 1851 and 1852 typhoid fever prevailed in Atlanta as an epidemic, although the number of cases was not given. Dr. Westmoreland also claimed that no case of malarial fever ever originated in Atlanta, an impression which held ground for many years. The cause of typhoid fever was not known until 1880, the mosquito conveying malaria was not discovered until 1897, and the mosquito carrying yellow fever was not found until 1901.

For many decades instruction in the medical school was mainly by didactic lectures, but gradually new features, such as clinics and laboratory courses were added. In addition to operating a medical school the faculty published a periodical known as the *Atlanta Medical and Surgical Journal*, which was a constant source of financial irritation, and finally was sold to private parties who continued its publication. Today copies of these journals furnish valuable data as to the progress of medicine in Atlanta in the early days, showing the importance of published records. The interesting, indispensable men of the period have long since gone to their reward, the old college building has been torn



down, but the printed material remains to tell the story. Minutes of faculty meetings tell of the "fussing" over the cost of the *Journal* and the desire to discontinue it, but in failing to carry out such a threat these gentlemen performed a service to posterity, the value of which they little knew.

The old minute book records interesting events. At the first commencement a procession of the board of trustees, faculty and students formed at Dr. Westmoreland's office and marched through the streets to the City Hall. In deciding upon a student's qualifications to pass, four blackballs meant rejection; five whiteballs meant election, while three blackballs meant the student might repeat the course. Oratory played a large part in commencement programs in those days, and no wonder, with the talent on hand! At different times the speakers were Benjamin Harvey Hill, John B. Gordon, Alexander H. Stephens and Robert Toombs. As the dean had no authority to spend money without a faculty resolution, the minutes furnish a carefully formed resolution authorizing the dean to appropriate two dollars for cleaning out the well at the college. Another paragraph read: "Dr. Hillyer moved that the horse which was turned over to the dean in payment of a note given to the faculty for tuition be sold by him and the proceeds paid upon the debt of Hunnicutt and Taylor against the college." At a later meeting the dean reported that the horse which he was ordered to sell had been sick but he thought he was now getting better, while still later he reported that the horse was now well, but still unsold.

T. H. Martin's "Atlanta and Its Builders" tells how the Atlanta Medical College building was saved in Sherman's destruction of the city. The credit for preserving the building belongs to Dr. D'Alvigny, a member of the faculty, who had been a soldier of France. On the morning of the evacuation of the city by the Confederate forces he was left behind, and was placed in charge of some wounded soldiers at the college building. When it was definitely announced that the city would be burned, Dr. D'Alvigny set his wits to work to save the building from going



Emory University Hospital, 1938, Emory University

with the rest, if such a thing was possible. He distributed whiskey freely to his assistants, and instructed them how to act. When the squad of Federal soldiers appeared to set fire to the building, the doctor told them that he had been in three armies, and that this was the first time he had ever seen sick and wounded men burned without giving them a chance for removal. The officer in charge denied that there were any such men in the building, that they had been carefully removed by military authority. Dr. D'Alvigny then threw open the doors, and exhibited men lying on pallets of straw and issuing distressing groans and appeals for attention. The officer, after witnessing this unexpected sight, gave the doctor until daylight to have the men removed. But when daylight came the danger was gone, Sherman's army had begun its march to the sea.

In 1878, Dr. T. S. Powell, who had left the Atlanta Medical College several years previously, organized the Southern Medical College. At this time, on the faculty of the older institution, were Drs. A. W. Griggs, A. W. Calhoun, Robert Battey, of Rome, J. T. Johnson, G. W. Holmes, J. P. Logan, V. H. Taliaferro, W. A. Love, W. S. Armstrong, J. B. Baird, and Drs. J. G. and W. F. Westmoreland. Later Drs. W. F.





Henrietta Eggleston Hospital for Children, Atlanta

Westmoreland, Jr., W. S. Kendrick, V. O. Hardon, J. S. Todd, H. P. Cooper, W. S. Goldsmith, E. B. Block, Bernard Wolff, C. E. Boynton, C. W. Strickler, S. T. Barnett, F. P. Calhoun and J. E. Paullin were added. The names of the original faculty of the Southern Medical College are not available, but during its existence the following were members, in addition to Dr. Powell: Drs. W. P. Nicolson, G. G. Roy, J. M. Gaston, W. S. Elkin, J. C. Olmsted, H. F. Harris, Dunbar Roy, F. W. McRae, Jas. A. Gray and J. B. S. Holmes. The new institution erected a building adjoining the historic structure of its neighbor, and in 1898 the two schools united to form the Atlanta College of Physicians and Surgeons, utilizing the plants of both colleges. In 1905 another division occurred in the faculty, resulting in the organization of the Atlanta School of Medicine. Among those who joined the new college from the faculty of the Atlanta College of Physicians were Drs. W. S. Kendrick, E. G. Jones, J. L. Campbell, F. K. Boland, W. B. Emery, R. B. Ridley and R. T. Dorsey. New faculty members added were Drs. G. H. Noble, E. C. Davis, L. C. Fischer, C. D. Hurt, J. M. Crawford, E. C. Thrash, E. G. Ballenger, S. R. Roberts and L. M. Gaines. The Atlanta School of Medicine erected another college building on Luckie Street, but in 1913 union was again effected with the re-establishment of the Atlanta Medical College, while two years later, in 1915, this institution became the Medical Department of Emory University.

The Treasury Department, United States Public Health Service, Washington, in its Press Service states: "Only about half of the adult population of the nation claims to have normal hearing, according to random samplings made in connection with recent U. S. Public Health Service surveys. Findings revealed that only 56 per cent of these people passed audiometer tests."

## NOTABLE INVESTMENTS IN ATLANTA FOR MEDICAL EDUCATION AND HOSPITALS

J. L. CAMPBELL M.D.

*Atlanta*

The year before the War Between the States there were thirty-one doctors in Atlanta. A medical college and a small hospital had already been organized, the former chartered by an act of the Legislature, the latter by a resolution of the City Council. We have no record of the fate of the hospital, but we know it was run for a short time by Drs. John G. and Willis F. Westmoreland and Dr. James F. Alexander and that it cared for city patients at a per diem price of one dollar.

In 1853 the Atlanta Medical College was organized and a building begun on a lot donated by Col. L. P. Grant at the corner of Butler and Armstrong streets in a section of the city that was almost a wilderness. We have no record of the value of the lot at the time it was donated, but it is now worth more than \$30,000. There must have been liberal subscriptions to the medical college enterprise, for in 1857 Dr. John G. Westmoreland was elected to the Legislature on the platform of upbuilding the city and to secure an appropriation to complete the medical college. As a result of his efforts the State invested \$15,000 with the understanding that the college would give a scholarship annually to one student from each congressional district. That was a wonderful investment *for the State*, as many worthy young men who would otherwise have been compelled to follow some other calling have thereby been able to gain a medical education.

In addition to educating young men for the medical profession the college at once began to conduct a clinic for patients unable to secure medical care at their own expense. A part of the building was devoted to hospital purposes. Although the service was crude as compared to present-day facilities, it was better than that which the patients could have received at home.

The War Between the States brought all progress to a standstill for many years. And to those who returned to Atlanta in '64 and '65 hope seemed almost extinct; they had to



St. Joseph's Infirmary, Atlanta

fight against great odds for a mere existence.

However, When Dr. Thomas S. Powell organized the Southern Medical College in 1878 he was able to interest a group of women in a hospital project. These women raised sufficient money to buy an old building which was converted into a hospital, later known as the "Ivy Street Hospital." It was used by the city for charity patients and by the Southern Medical College as a teaching unit.

Shortly after the death of Mr. Henry W. Grady in December, 1889, it was proposed to erect a monument to his memory and a group began to solicit subscriptions. It was at this time that Mr. W. A. Moore, senior partner of Moore and Marsh Company, wrote a note to the *Atlanta Constitution* stating that he would not contribute to a statue, but would give \$5,000 in cash and a like sum as a legacy in his will if the memorial might take the form of a city hospital. This proposal met a hearty response and Mr. Joseph Hirsch, one of Atlanta's enterprising Jewish citizens together with Colonel Robert J. Lowry, organized the civic leaders of the city and began a campaign for funds. There were no other outstanding gifts, but the movement touched the hearts of the lowly as well as the purses of the wealthy, and many a dollar was raised by the nickels, dimes and quarters of Atlanta's school children and others of small means. So, when the first unit of Grady Memorial Hospital was built, equipped and turned over to the city it was found that neither the city nor Fulton County had contributed anything toward the building fund. Much credit for the success of this project must be given to Mrs. Nellie Peters Black who was an untiring public spirited worker in this

and many other civic enterprises. Mr. Hirsch continued to take a great interest in the affairs of Grady and was retained as president of the trustees as long as his health permitted. Mr. Wilmer L. Moore, who had only recently entered his father's firm, was placed on the board of trustees and served for many years as its secretary.

Not long after the completion of Grady Hospital the Southern Medical College moved to a lot adjoining the Atlanta Medical College and erected a modern college building. This was financed through sale of the old property and subscriptions made largely by members of the faculty. The amount of these contributions is not known, but it was not far from \$50,000.

In 1898, the Atlanta Medical College and the Southern Medical College combined under the name of the Atlanta College of Physicians and Surgeons. The buildings belonging to both schools were necessary to accommodate the increased number of students, so their proximity enhanced their value.

There were no further gifts to medical college or hospital activities until 1905, when the Atlanta School of Medicine was organized. It required about \$75,000 to launch this enterprise. The money was secured by gifts from a number of interested physicians. Prominent among them were Drs. W. S. Kendrick, George H. Noble, J. M. Crawford, E. C. Davis, L. C. Fischer and E. G. Jones. Many others contributed smaller sums.

During the same period the Atlanta College of Physicians and Surgeons had demolished the old Atlanta Medical College building and erected in its stead the building that is now the Emory University (colored) unit.



of Grady Hospital. To finance this building and its equipment required more than \$100,000, to which the faculty contributed liberally. Large gifts were made by Drs. A. W. Calhoun and W. S. Elkin and Mr. Andrew Carnegie made the completing gift of \$25,000.

When the consolidation of the Atlanta College of Physicians and Surgeons and the Atlanta School of Medicine took place in 1913, the school resumed the name of the parent institution, The Atlanta Medical College. Its buildings and equipment were donated by the Atlanta College of Physicians and Surgeons. The Atlanta School of Medicine gave its equipment and \$20,000 to be used as an endowment.

Two years later, in 1915, Emory University took over the Atlanta Medical College as its school of medicine and Mr. Asa G. Candler added \$250,000 to the endowment. About a year later Mr. J. J. Gray of Rockdale, Tennessee, gave \$50,000 for the purpose of building a clinic or outpatient department; when this was finished it had cost nearly \$75,000. It is one of the most substantial structures in Atlanta. A few years ago extensive additions were made to it so that it now accommodates the emergency rooms, University administrative offices, all outpatient record and investigative departments, and two clinical laboratories, besides the outpatient treatment rooms.

Mr. Asa G. Candler and members of his family also gave to Emory University more than \$1,750,000 to be used chiefly in building and equipping the University Hospital, the Lucy Elizabeth Maternity Pavilion, and the nurses' home. Altogether, the Candler family has contributed upward of \$2,250,000 for medical education and hospitals in Atlanta. The generosity of Mr. T. T. Fishburne of Virginia and Dr. John P. Scott of Louisiana made possible the two medical science buildings on the Emory University Campus.

Another generous gift brought into existence the Albert Steiner Ward of Grady Hospital. Back in reconstruction days Mr. Albert Steiner came to Atlanta as an immigrant boy. By thrift and economy he accumulated a considerable fortune. He outlived all members of

his immediate family, so when he found his end approaching he determined to give a large part of his estate to relieve the suffering of the poor. For that purpose he left "the rest and residue" of his estate, amounting to a half million dollars, for the medical and surgical treatment of the "poor of Atlanta." The item of his will relating to this gift contained only two main provisions: first, that a ward in connection with Grady Hospital or some similar city institution should be built by the executors and should bear his name; second, that the remainder of the estate should be known as "The Albert Steiner Charity Fund," the net income from which should be used for the medical and surgical treatment of the "poor of Atlanta" in the Albert Steiner Ward or in some other hospital in the city.

After careful thought and investigation the executors wisely elected to build and equip a ward for the treatment of malignant and allied diseases and to spend the income from the Albert Steiner Charity Fund for the salaries of a full-time staff who, in association with a visiting staff of Atlanta surgeons and physicians, should administer treatment to cancer patients.

To Dr. Michael Hoke belongs the honor of interesting the Masons of the South in the construction, equipment and to a large extent, the maintenance of the Crippled Children's Home located just outside the city limits of Atlanta. Mr. Albert Steiner was one of the largest contributors to this institution which has wrought marvels in reconstructing crippled children who would otherwise be a burden on their families or the State.

For many years an organization known as the King's Daughters envisioned a home or hospital for individuals incurably sick. After long and untiring effort they succeeded in building a hospital at the corner of Boulevard and Woodward Avenue, S. E. It was called the King's Daughters Hospital. Finally, Mr. A. G. Rhodes became interested, completed the equipment and assumed its obligations. It is now known as the A. G. Rhodes Home for Incurables and is constantly filled with people who would otherwise spend a miserable existence. In addition to caring for its inmates it gives work to an undergradu-





Crawford W. Long Memorial Hospital, Atlanta

ate medical student, who looks after the wants of the patients under the direction of a visiting staff.

Mr. Thomas Egleston provided in his will for the building and equipping of a memorial to his mother—the Henrietta Egleston Hospital for Children. No geographic limitations were placed on admissions; neither was it specified that its service was for the poor. The objectives of the hospital as set forth in its 1929 bulletin are: "To furnish medical and surgical aid to sick and injured white children up to 12 years of age, irrespective of sex, creed, nationality, or place of residence." No patient with a chronic or incurable condition may be admitted unless there is prospect of effecting relief. Contagious diseases are also barred. "Application for admission should be made through the family physician."

The bequest is administered by the Trust Company of Georgia and the hospital by a board of trustees. There has been perfect harmony in all respects. The hospital contains fifty-two beds, eight of which are private pay rooms. All equipment is first class. It is rated as "class A" by the American College of Surgeons and is recognized as a teaching hospital by the American Medical Association. In its wards Emory University medical students receive instruction in pediatrics; so the gift is serving the dual purpose of caring for

the sick and teaching those who would learn to minister to them.

Recently Dr. L. C. Fischer, who had acquired all the outstanding obligations against the Crawford W. Long Memorial Hospital, gave in fee simple the institution and its equipment to a board of trustees to be used in such a way that people of moderate and low income who do not wish to become objects of charity can secure hospitalization within their means. This is a well equipped hospital. It has a large and interested visiting staff who are taking great pride in maintaining a high standard. During 1938 the hospital cared for 6,000 patients and it looks forward to a future of great usefulness.

The most recent hospital and educational enterprise in Atlanta is one that has been conceived by a group of public spirited citizens who wish to have their names withheld. It is the founding of a medical center to be connected with Emory University and having Grady Hospital as a nucleus. Already more than \$500,000 has been contributed and it is hoped that the plan will be speedily consummated.

The Georgia Baptist Hospital has received no outstanding gifts. However, a number of friends, among them Mr. Wiley L. Moore, have contributed liberally to the building fund.

The hospital owes its inception to Dr. Len G. Broughton who, with a few friends, rented an old house on Pryor Street in which to care for destitute young women. The enterprise soon attracted attention and needed larger quarters; so Dr. Broughton moved it to Luckie Street where he rented two brick buildings which he called "The Tabernacle Infirmary." He then began to solicit funds for the erection of a modern hospital building. The first and largest contribution, \$1,000, was made by Dr. L. C. Fischer. Other contributions and the proceeds from Dr. Broughton's evangelical meetings went into the construction of the Tabernacle Infirmary. The demands on the hospital soon reached such proportions that the work was turned over to the Georgia Baptist Convention, under whose administration it has continued to expand.

The Atlanta Cancer Clinic of the Georgia Baptist Hospital was made possible by contributions from Mr. I. M. Sheffield, who has recently extended his philanthropy by the purchase of the Glazier Primitive Baptist Church located adjacent to the nurses' home. The church will be remodeled and converted into an up-to-date cancer clinic with the most modern equipment purchasable. During 1938 the Atlanta Cancer Clinic admitted for diagnosis and treatment 741 patients, 62 per cent of whom had some form of malignant disease. The staff consists of 30 outstanding Atlanta physicians greatly interested in all phases of cancer diagnosis and treatment. The Clinic has been approved by the American College of Surgeons and accepted by the Cancer Division of the State Department of Public Health as a state-aid clinic.

Through the interest and generosity of another public spirited citizen, Emory University has added to its hospital a department known as the Robert Winship Clinic. It is thoroughly equipped for the treatment of neoplastic diseases and complies with all the requirements of the American College of Surgeons, and it will be given full recognition at the earliest possible date.

Among other gifts for medical education is one of Mr. E. M. Hudson which has enabled Dr. J. R. McCord, Professor of Obstetrics and Gynecology of Emory University, to make studies in the diagnosis and treatment of

syphilis in pregnant women and newborn babies. This work has not only attained national recognition but, in generations to come, will continue to save thousands of lives and relieve the commonwealth of the burden of caring for an untold number of invalids and human derelicts.

The Abner W. Calhoun Medical Library, as a part of Emory University Hospital, was made possible by the generosity of Mrs. A. W. Calhoun, Dr. F. P. Calhoun, and other members of the family. The library contains 18,500 volumes besides files of all the more important medical periodicals published in English and foreign languages. It has a large collection of portraits of distinguished medical men, reprints of outstanding articles by local authors, many rare volumes and a collection of old instruments and appliances that cannot be equaled in any museum in this section of the country.

Sometime during the year 1881 two Sisters of Mercy from Savannah arrived in Atlanta. They had \$2 in their purse and an abundance of faith, hope and love in their hearts. To these they wished to add *Mercy*, in fulfilment of the fourth vow recently added to their Order; namely, that the Sisters devote their lives to the poor, the sick and the ignorant. Soon after their arrival in Atlanta these two Sisters rented an old six-room cottage and founded St. Joseph's Infirmary. It is probable that they little dreamed the results that would accrue to their investment, for St. Joseph's Infirmary is today one of the foremost hospitals in Atlanta. It has increased its accommodations until it can care for a daily average of 130 patients. It has done its share of Mercy work and to date has received in contributions, beside the original \$2, only four other notable gifts; one from Mrs. Lula Cox McWhorter, with which fifteen rooms were added, \$10,000 from Dr. R. D. Spalding, \$5,000 from Mrs. J. J. Lynch, and \$1,000 from the will of the late Col. J. J. Spalding.

"The Sisters of St. Dominic of the Congregation of St. Rose of Lima is a congregation founded by Mother Mary Alphonsa Lathrop, the daughter of Nathaniel Hawthorne, and has for its object the care of those who are suffering from incurable cancer."





Anatomy and Physiology Buildings, Emory University

Florence Candler Harris Memorial Nurses' Home,  
Emory University

This Order has never solicited contributions, but owing to the spirit of holiness, faith and sacrifice which pervades its members large donations have been made to its work. Already several institutions have been organized and are giving excellent service to those who are destitute and sick with cancer for whom there is no hope of cure. With two or three large sums recently contributed by northern friends the Order has established such a home in Atlanta. The splendid building and spacious grounds of the old Jewish Orphanage on Washington Street are being prepared for the reception of patients and will be ready for occupancy in a short time. No money will be accepted from a patient and no one able to pay will be admitted.

Among other notable gifts which have not yet been placed is one from the Williams' estate, said to be for a woman's hospital. The Whitehead family has also provided a fund, the income from which will in time reach large proportions. It is under the direction of a commission of broad-minded gentlemen and will be ably managed.

The Atlanta Tuberculosis Society was organized thirty years ago and has grown to large proportions. It cares for many unfortunate individuals who would otherwise fill early graves. In addition, it gives instructions to members of their families, so that the spread of the great white plague may be checked.

The organization of the Tuberculosis Association was stimulated by gifts from Captain William G. Raoul and Mr. John J. Egan. They financed the young society for many years and made liberal gifts for a permanent organization. At the present time it is supported largely by the sale of Christmas Seals

and an occasional gift from some interested friend.

The economic value of the gifts enumerated in this article are beyond computation. Neither Colonel L. P. Grant, who gave the land for the Atlanta Medical College, nor the State Legislature which appropriated \$15,000 toward completion of the building, could have visioned the results of their gifts. From the scholarships authorized 81 years ago more than 600 young men have been able to secure medical educations. This means that the medical school has returned to the State more than \$80,000, while the lives of the men who received this education have given an accumulative service of 24,000 years. They have ministered to the sick and needy and have served boards of health, school boards and public health agencies without fee. If we reckon these years at the money value of a college graduate they have been worth to the State and their communities more than 100 million dollars. The returns have been no less impressive in human values. Thousands of lives have been prolonged and other thousands saved from disabling maladies. Homes have been made happy and frequently rescued from financial disaster by the restored health of loved ones.

And so the "investments" of Atlanta's benefactors continue to bring rich dividends to the individual, to the municipality, and to the State.

478 Peachtree St., N. E.

The Press Service, U. S. P. H. S., Treasury Department, Washington, states that babies born in 1938 have a 62-year lease on life. This figure compares with 60.26 in 1931, and 60.9 estimated for 1937. This is a gain of 1.74 years in 7 years since 1931.



## DOCTORS OF THE PAST WHO HAVE CONTRIBUTED TO THE MAKING OF ATLANTA MEDICINE OF THE PRESENT

J. CALVIN WEAVER, M.D.  
*Atlanta*

Of the altruistic instincts veneration is not the most highly developed at the present day. But I hold strongly with the statement that it is the sign of a dry age when the great men of the past are held in light esteem.

—Osler.

In looking over a collection in my possession of a large number of engraved portraits of medical and surgical celebrities of the last three centuries, it is most impressive to view the radical changes in the dress and particularly the physiognomy of these outstanding men. Even so short a period as twenty-five years brings noticeable changes, and if my memory serves me correctly the doctors of even a quarter century ago were different in appearance from doctors of the present.

Doctors of Marthasville had little or no influence on medicine of today: not so with the Atlanta doctors, for soon after the name was changed to Atlanta activities were started that are still bearing fruit.

If a thumbnail sketch of every doctor who was a resident of Atlanta proper during its ninety-one years of steady growth were made from Dr. Joshua Gilbert, its first physician who blew a whistle to let citizens know his whereabouts, to Dr. R. R. Daly who recently used a burden for a pillow and laid down to an eternal sleep, instead of a fifteen hundred word article 'twould require as many pages, so necessarily only doctors who did outstanding constructive work can be considered.

When Atlanta was a year old, with a population of only 600 to 800, the Mayor was authorized to appoint a board of health, on which he placed Dr. Joshua Gilbert and Dr. S. S. Smith. This was the first official medical step that looked towards the upbuilding of Atlanta.

The name of Dr. J. Alexander comes down through the years for having attended Alexander H. Stephens who had been severely wounded by Judge Cone.

Dr. Martin, father of Thomas H. Martin, author of "Atlanta and Its Builders," was a



Ponce de Leon Eye, Ear, Nose and Throat Infirmary, Atlanta

well read man, did his work well, and at least indirectly perpetuated the memory of the pioneers.

Dr. Chapman Powell located in Atlanta in the early fifties. Formerly a member of the General Assembly from DeKalb County in 1836, he worked actively for a charter for the State road. His influence continued to be felt, and as an insight into his character he so loved his high calling that he turned the back of his hand on politics and refused a second nomination.

Atlanta began to grow rather rapidly. New comers of different nationalities and from different climes came and started the wheels of progress rolling. Along with them came doctors who did things and today medicine of Atlanta recognizes the imprint from the influential activities of Dr. J. F. Alexander, Dr. Jno. G. Westmoreland, Dr. W. F. Westmoreland, Sr., and a French physician Dr. A. D'Alvigny.

Though efforts were made in 1845 to organize the Atlanta Medical College, it was several years later that the officers of the college petitioned the Mayor and Council for the use of the new \$10,000 City Hall for the purpose of giving lectures therein, the first lectures began in 1855.

Despite the fact that a spring at the site of the present Walton Building and one at the Candler Building, and probably others, created branches through the town, despite the almost impassable mud that occasioned plank sidewalks to be made on Whitehall Street, despite the remaining stumps of trees, Drs. Alexander and John and Willis Westmoreland had vision and faith in the future, and Sept. 22, 1854, sent a communication to the City Council stating it was their inten-



Calhoun Memorial Room, The Abner Wellborn Calhoun Medical Library, Emory University

tion to open a first class medical infirmary or sanatorium in or near the city for the treatment of all kinds of maladies and accidents, and that they proposed to erect a building of suitable character for the purpose.

They offered to board all persons whom the Mayor and the Council might see fit to send to the infirmary for one dollar per day, the city to pay what it thought proper for such medical treatment as was received by patients sent to the institution by order of the city. The City Council issued the permit to erect the infirmary, as requested.

Along about this time came Dr. J. P. Logan.

In July, 1855, the cornerstone of a handsome building for the Atlanta Medical College was laid, the first lecture course was held in the City Hall.

The first faculty to begin the work that endures today consisted of eight members only, viz., Drs. M. G. Slaughter, J. W. Jones, Jesse Boring, W. F. Westmoreland, Sr., J. E. DuBose, G. T. Wilburn, J. J. Roberts and J. G. Westmoreland.

If my information is accurate, Dr. J. G. Westmoreland is the only one who wrote a book, a newly bound copy of which is in my library today. The title, "A Treatise on

Acology and Therapeutics, with some of the most prominent Principles and Rules of Chemical and Mechanical Pharmacy," by J. G. Westmoreland, M.D., Professor of Materia Medica and Therapeutics in Atlanta Medical College, Atlanta, Ga. Plantation Publishing Company's Press 1873.

From the dedication, which gives a cross section of their lives, one can visualize these two brothers, master minds working, like Castor and Pollux, in fraternal harmony:

"To Willis F. Westmoreland, M.D., Professor of Surgery in Atlanta Medical College, as a testimony of esteem for an only brother, whose life has been devoted to the Science and Art of Surgery; to the True Principles of the Medical Profession, and to the cause of Humanity, this volume is affectionately inscribed, by The Author."

No one could have said more in these few words.

In connecting up the work of these pioneers with present medical conditions, one whose name is "linked to the past and to the future," one who tradition tells us was as a baby nursed by Indian Chiefs, Tahchansee and Turkey, one who matriculated in the second class of the Atlanta Medical College and who graduated in 1859, was Dr. Elijah



Lewis Connally. At the time of his death in March, 1930 he was the oldest alumnus of that institution. His interests were widespread and he did much towards building Atlanta as a city as well as contributing towards the advancement of Atlanta Medicine. He gave \$5,000 to the present Georgia Baptist Hospital toward establishing the "Mrs. Mary Brown Connally Laboratory," one of many gifts to this hospital, and other hospitals beside.

Less than six years of lectures had been delivered when such able men as Drs. Alexander H. Means and Joseph P. Logan were added to the faculty.

When the War Between the States brought the conflict to the doors of Atlanta, every available building was pressed into service for hospital purposes, particularly the new, handsome Atlanta Medical College building. When General Sherman ordered the destruction of Atlanta, it was a ruse of Dr. D'Alvigny, curator of the museum, which saved the valuable building of the medical college.

During Sherman's raid, when "all the fires of Hell and all the thunders of the universe seemed to be blazing and roaring over Atlanta," a shell wounded Dr. Gate's wife and child. One entered the house of Dr. C. Powell. One struck the house of Dr. Harrison Westmoreland, also Dr. Dawn's house, Dr. Guetebruck's, Dr. D. B. Smith's house and Dr. Goodman's, while one exploded inside the home of Dr. Willis Westmoreland. A beneficent Providence seemed to save these men, particularly Dr. Willis Westmoreland, for work that was to be carried on.

Dr. Thomas S. Powell heavy of body, with a strong eye and fine clean cut features, was outstanding in his care of wounded soldiers in the Confederate hospitals in Atlanta. Graduated at the University of Pennsylvania, he located at Sparta, Ga., was invited to address the faculty of the Atlanta Medical College in 1857 the result of which he was appointed a member of the faculty of that college in 1858, resigned in 1866 to enter private practice; he established the Southern Medical Record, which he and Dr. R. C. Ward published for several years.

In 1879 he organized the Southern Medical College, and nine years later organized the

Southern Dental College, as the Dental Department of the Southern Medical College. He also established the first *public* hospital in Atlanta and ran it until the Grady Hospital was erected by the City.

Another picturesque character to enter this field and who did much to rebuild the Medical Association of Georgia early after the close of the Civil War, was Dr. William Abram Love, also a graduate of the University of Pennsylvania. He was at one time Superintendent of the Georgia Asylum for the Deaf and Dumb.

Moving from Albany to Atlanta in 1870, a year later he was elected to the staff of the Atlanta Medical College as Professor of Physiology. He had a constructive mind, was a great organizer and was a delegate to the American Medical Association along with such mental giants as Drs. L. A. Dugas, R. D. Eve, A. W. Calhoun, L. D. Ford and John G. Westmoreland. He was a Thirty-third degree Mason.

Another delegate to the American Medical Association was Dr. Abner Wellborn Calhoun. Mention of his name to me is like treading on sacred ground. I knew him when he was in his declining years and was a patient of Dr. Hugh Young's at Johns Hopkins Hospital. Many afternoons it was my privilege to chat with him on "The Bridge." The story of his life would make a wonderful biography, so it will have to suffice to quote a paragraph or two from Dr. de Schweinitz' beautiful tribute:

"It is altogether fitting and proper that the memory of Dr. Abner W. Calhoun should be enshrined in this Foundation. His achievements as citizen, soldier, physician and teacher constitute a distinguished chapter in the chronicles of the history of this great State.

"His commanding presence, his distinguished personality, his utter friendliness, his high ideals, his balanced judgment, his untiring energy, his manual dexterity — these were the assets of this gifted man spent with fine liberality for the advantage of his adoring patients and of his admiring students."

Professor of ophthalmology and otolaryngology, no one has made more impression on Atlanta Medicine than this courtly gentleman.





Main Reading Room, The Abner Wellborn Medical Library, Emory University

The early faculties of the Atlanta Medical College had the Westmoreland brothers and a few others already mentioned, and such men as Jessie Boring, Alexander Means and Joseph P. Logan.

In the Southern Medical College faculty besides Dr. T. S. Powell, was William Rawlings, Wm. Perrin Nicolson, G. G. Crawford, J. F. Alexander, G. G. Roy, J. C. Olmsted.

I knew Dr. Nicolson and Dr. Olmsted. Dr. Nicolson knew anatomy, and with this foundation he naturally was a brilliant surgeon, not only in general surgery, but in a way he pioneered in brain surgery.

Dr. Olmsted was the typical gentleman of the old school; highly educated, polished and refined, he was an ideal physician.

As both schools grew and were later consolidated, new men continued to locate in Atlanta to swell the number of distinguished members of the profession.

As my grandfather, Dr. John Calvin Drake, admired Dr. Calhoun, so my father always gave unstinted praise to Dr. Hunter P. Cooper, whose surgical judgment allowed him to live out his allotted three score years and ten.

The name Gray seems synonymous with

anatomy. Henry Gray finished Gray's Anatomy and died in his thirties. James A. Gray was dean of the Atlanta Medical College for seven years after he received his degree and died in his thirties. As a foundation for his work he claimed to have read Gray's Anatomy four or five times every year. He was brilliant and his death meant a great loss to Atlanta Medicine.

Gray's biographer, one of Georgia's noblest physicians and most gifted writers, Dr. J. S. Todd, belonged to that galaxy of outstanding physicians which included H. V. M. Miller, W. S. Armstrong, Jno. G. Earnest, James B. Baird, Abner W. Calhoun, Hunter P. Cooper, Wm. Perrin Nicolson, J. C. Olmsted, Willis F. Westmoreland, Jr., W. S. Kendrick, Geo. H. Noble, H. F. Harris, Floyd W. McRae, E. C. Davis, Edward G. Jones and E. Bates Block.

It has been said that Dr. H. F. Harris did more original work and research than any other member of Atlanta's profession. He discovered hookworm disease in Georgia, recognized the presence of pellagra and sprue, and developed the universally used tissue stain, hematoxylin eosin.

As good friends as Dr. Willis Westmore-

land and Dr. Harris had been, at one time they had an ugly and unfortunate newspaper controversy that created much unpleasant feeling.

While Dr. W. S. Armstrong performed several pioneer operations at Grady Hospital, it is generally recognized that Dr. W. P. Nicolson did the first appendectomy in Atlanta, the patient being a young dental student.

A good many were under the impression that the appendectomy performed later by Dr. Floyd W. McRae on Gov. W. Y. Atkinson was the first in Georgia. Dr. McRae was as clever in abdominal surgery as he was polished in manners.

Contemporary with the above men was Dr. Willis F. Westmoreland, Jr., Professor of Surgery. I was closely associated with him for five years and knew him well. In my humble judgment he was the hardest student, the most profound thinker, had the most retentive memory, did more deductive reasoning and the most finished work that any surgeon in Atlanta has ever done. As one outstanding internist remarked, "when they bury Willis Westmoreland more surgery will be put under the ground than is left on top of it."

It was a great pity that his great storehouse of learning was not turned into a book for future generations. He was even scientific about removing stitches.

A great friend of his was Dr. A. F. Fowler, Professor of Genito-Urinary Surgery. He was a pioneer in the use of the cystoscope and was among the first in Atlanta to use one. He preferred the direct scope. He was very jealous of this accomplishment, and though I was associated with him five years, he would never give me any instructions about the use of the instrument and I finally had to go to New York to learn cystoscopy.

Another prince of a fellow with whom I was associated, was Dr. Charles E. Dowman, who pioneered in brain surgery, who made a well deserved name for himself and who was popular with all the doctors of the State. He was a good operator and a fine diagnostician and did much to put Atlanta on the medical map, as did Dr. Bates Block, who stuck to medical neurology. He was probably one of

the best educated doctors Atlanta has ever had and was a scholarly gentleman at all times.

Dr. Dunbar Roy, who specialized in ophthalmology and otolaryngology, was another fine, clean, highly educated gentleman who was a credit to Atlanta.

One of the most polished and one who was the greatest sticker for medical ethics, was Dr. J. C. Olmsted. He was a great internist and was game to the core. The stormiest meeting ever held at the Fulton County Medical Society was led by him when a prominent surgeon was charged with unprofessional conduct. I will never forget his speech on medical ethics. After much filibustering by the opposite side, the meeting finally broke up around one o'clock in the morning with no decision made.

Three other outstanding men, each one a specialist in gynecology: Dr. Geo. H. Noble, Dr. E. C. Davis and Dr. John G. Earnest, all three were excellent operators.

Dr. Noble, who owned Noble's Sanatorium, did some notable work on intra-abdominal pressure, and undoubtedly was most gifted in mechanics. He was fast and skillful.

Dr. Davis and Dr. Earnest both could be compared to St. Luke, "the beloved physician." Dr. Davis was connected with the Davis-Fischer Sanatorium.

It was almost pathetic to see female charity patients awaiting Dr. Earnest's service at Grady Hospital begin so they could be admitted under Dr. Earnest's care. I scrubbed up more than once when the blackboard listed as many as six laparotomies by Dr. Earnest.

Dr. James B. Baird was always immaculately dressed, was polished in manner, was highly educated, and I still remember him say by way of preface, "gentlemen, as I have said before, all that is good is not new, and all that is new is not good."

The loss of Edward G. Jones was nothing short of a tragedy for Atlanta. Nephew of Dr. W. S. Kendrick, he was a great organizer and a brilliant young surgeon, paying particular attention to surgery of the thyroid gland. He was succeeded by Dr. Charles Waits, who carried on the same kind of work in a most creditable way. Waits, like Dr. Jones, died in his prime.

Dr. Willis Jones was an outstanding surgeon and did more appendectomies perhaps than any other Atlantan. It was almost unbelievable how quickly he could complete such an operation. He was always ethical and would give everyone a square deal.

Dr. Virgil O. Hardon was one of Atlanta's ranking gynecologists; he was gifted and most skillful; before the days of the cystoscope it was claimed that he could catheterize a female ureter by the sense of touch.

Dr. Robert Ridley at one time had one of the largest practices in ear, eye, nose and throat work, and had a wonderful personality.

This roll of honor would not be complete without the names of Dr. Sage Hardin and Dr. Rufus T. Dorsey. Dr. Hardin, who was with Dr. Floyd McRae, Sr., for some ten or fifteen years, was a finished gynecologist, with an abundance of "good hard common horse sense" while Dr. Dorsey, internist, had one of the most analytic minds the Atlanta profession ever claimed.

And then, Bert Wagon, who trained under Dr. Noble. A fine genial lovable gentleman, who threw a bomb into the camp of the Fulton County Medical Society with his paper advocating removal of pus tubes in the acute stage.

Another interesting paper was by Dr. Wm. Perrin Nicolson entitled, "Twenty Years of Consultation Work in Atlanta," in which he said: "After twenty years of consultation work, I find that it consists in meeting a doctor, listening to what he has already done for the patient, and what he proposes to do in the future."

Most of these outstanding men lived before the era of clean shaven doctors. Some had a moustache, some had long whiskers, some had a goatee, while Dr. Olmsted had a long curled moustache which he stroked with much pride.

These men practiced not only scientific medicine, but the art of medicine, which it seems to me is now a lost art. They built a wonderful foundation for Atlanta Medicine of today.

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Dr. William S. Middleton, Secretary-Treasurer, 1301 University Avenue, Madison, Wis., will give information in reference to examinations by the American Board of Internal Medicine

## HOSPITALS OF ATLANTA

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WILLIAM S. GOLDSMITH, M.D.  
*Atlanta*

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In setting forth the history of medical education in this community and section, it is necessary to make frequent allusions to the organization of hospitals of different eras.

In the late nineties it was becoming more and more apparent that hospital facilities in conjunction with medical colleges were an imperative requisite.

These hospitals, municipal, sectarian, and private, were crude, inadequately equipped, and poorly managed. The efforts of the American Association of Medical Colleges and the very widespread propaganda of the American College of Surgeons looking to the classification of hospitals, following rigid inspection, has corrected to a large extent these evils, and, in fact, forced the abolishment of many crude, inadequate institutions.

The medical colleges outnumbered the hospitals so that the bulk of clinical teaching was limited to ambulatory patients selected daily from the promiscuous crowds attending large out-door clinics.

In the light of present day advancement it is with a degree of mortification to relate that forty years ago more than forty medical schools were in operation south of the Mason-Dixon line.

There were four such institutions in Atlanta, four in Louisville, five in Tennessee, and so on. Eighty per cent of them were purely commercial in character, and the physical equipment and administration were similar in every respect to the hospitals of that period.

The question naturally arises as to the reasons for this multiplicity of such institutions. Was there a pressing national emergency requiring such an enormous output of poorly trained medical men? The answer is easy. There was no demand for the type of young men annually vested with all the legal rights and privileges of our profession. It was not, primarily, the individual student's fault; but it did encourage many uneducated and unfitted men to undertake the responsibilities of the practice of medicine. It may be said, in





Brawner's Sanitarium, Smyrna (near Atlanta)



Scottish Rite Hospital, Decatur (near Atlanta)

justice to all concerned, that a certain percentage of these men developed into first class physicians, and an honor to the medical profession, and certainly a conspicuous honor to their Alma Mater.

These schools and hospitals were conceived by local groups of physicians animated by professional dissensions, the gratification of personal vanity, or worse—self-exploitation.

Medical colleges and hospitals in those days were not congenial neighbors, as they were located in sections not desirable for residential purposes. The Negro population regarded them with a superstition and awe exceeding many times over that of a cemetery.

In 1892 the Southern Medical College erected a new college building immediately opposite Grady Hospital. This structure is now used as a nurse's home for the Emory Division of Grady Hospital.

At this period, the recent death of Henry W. Grady awakened in the minds and hearts of all the people of our city, the desire to commemorate in perpetuity the name and fame of the South's greatest orator and the most beloved citizen of the Commonwealth

of Georgia. It was decided that a charity hospital built by voluntary contributions of all classes would be the most appropriate memorial to this wonderful citizen. Therefore, the Henry W. Grady Memorial Hospital was erected by public subscription and was not in any sense a primary municipal project.

Inscribed upon the cornerstone of the hospital, which was laid Dec. 23, 1890, by John S. Davison, Grand Master of the Grand Lodge of Masons of Georgia, is this beautiful sentiment:

"He whose heart was so easily moved by others' woes would ask no fitter monument."

The hospital was opened for the reception of patients June 1, 1892.

This great charity hospital supported by the City of Atlanta and Fulton County has been enlarged from time to time to meet the demands of a rapidly growing great city.

The Albert Steiner Memorial Ward for the treatment of cancer and related diseases was opened in September, 1924.

The Providence Infirmary, on the west side of Ivy Street, between Edgewood and Auburn avenues, was opened in 1880 and oper-

ated by the faculty of the Southern Medical College. This so-called hospital was a terrible affair and the community was forced to tolerate it, as indeed it was also used for a period of time as a municipal hospital by the City of Atlanta.

St. Joseph's Infirmary was also built in 1880, with a capacity of fifty beds, but was without an operating room until the middle nineties.

The Georgia Baptist Hospital is the development of a sectarian institution having its beginning as the Tabernacle Infirmary organized in 1903 by Dr. Len G. Broughton, the pastor of the Baptist Tabernacle.

The Wesley Memorial Hospital, situated at Auburn Ave., and Courtland Street, was opened in 1905. Following the organization of Emory University the hospital was removed to the campus of the University in 1922. This great institution was made possible by the generosity of a great Georgian, Asa Griggs Candler.

The Piedmont Hospital was promoted by Dr. Ludwig Amster in 1905 as a private sanatorium. This institution, in 1908, was enlarged in bed capacity and the medical and surgical staff increased.

In 1908, Drs. E. C. Davis and L. C. Fischer organized a private hospital bearing this name. Following the death of Dr. Edward C. Davis, in 1931, the name of the institution was changed to that of the Crawford W. Long Hospital, as a memorial to the name and fame of the discoverer of sulphuric ether as a general anesthetic.

The Henrietta Egleston Memorial Hospital for Children was made possible by the provision in the will of Mr. Thos. Egleston, a great citizen of Atlanta, to establish such an institution in memory of his mother. This hospital was opened in October, 1928.

The Scottish Rite Hospital for Crippled Children was opened in September, 1915.

All of these hospitals are registered by the Council on Medical Education and Hospitals of the American Medical Association, American Hospital Association and the American College of Surgeons.

The Thirty-fifth Annual Congress on Medical Education and Licensure was held at the Palmer House, Chicago, February 13-14.

## MEDICAL LIBRARIES IN ATLANTA

W. E. PERSON, M.D.

*Atlanta*

The growth of medical libraries in Atlanta has had a long tedious course. The first step in this direction was made by the faculty of the Atlanta Medical College in 1857. Martin in his history of Atlanta says that the Legislature of Georgia in that year granted \$15,000 to the struggling medical school to pay up some back debts, and to found a museum and library. Dr. N. D. D'Alvigny was named curator, and collection of materials to form these important adjuncts to medical education began.

The War Between the States, with the destruction of Atlanta, not only destroyed any accomplishment in this line of endeavor, but left in its wake a condition of mental exhaustion and economic distress which deterred further steps toward a new start. Although many enthusiastic men tried to infuse a library spirit into the members of the local medical society, and sporadic starts were made many times, it was nearly 60 years until a substantial sustained effort was made to make the library a reality.

At the present time there are two medical libraries in Atlanta, namely, The John G. Westmoreland Library of the Fulton County Medical Society, and the Abner W. Calhoun Memorial Library of Emory University School of Medicine.

In 1922 one of the main difficulties in the formation of a library was solved; that is, permanent space for the storage of books and periodicals and for reading rooms was made available for the first time. This phase of accomplishment was rendered possible through purchase by the Fulton County Medical Society of a home on Prescott Street, and the completion of the Emory University Hospital.

The Fulton County Medical Society began its library in 1923, when the family of Dr. John G. Westmoreland—the founder of the now Emory University School of Medicine—gave his library to the society. Its growth has been small and irregular. The society has not been in a position to properly aid it, because the debt incurred for the home had to be settled. No sooner was this obli-





Academy of Medicine, 38 Prescott Street, N. E., Atlanta

gation met than a need for larger and more suitable quarters became urgent, and a new building fund had to be initiated. Members have contributed books, magazines and money in small amounts. It has had one sizable bequest of \$500 by the late Dr. B. H. Wagon.

It contains 639 books and 1,366 bound volumes of periodicals. The number of current periodicals taken is 74. A central location makes the reading room a popular place for study. The future of this library now appears much brighter for the work of the officials and a competent library committee are producing much improvement.

The Emory University Hospital was completed in late 1922, and the School of Medicine for the first time had complete control of a hospital. The necessity of a library to stimulate study, investigation, and reflection in the hospital was evident. Ample quarters were provided and plans made to start this important work.

Fortunately the family of Dr. A. W. Calhoun made a donation, and the University properly named the library the Abner Wellborn Calhoun Memorial Library in honor of an illustrious son, a noted pioneer, ophthalmologist, excellent teacher, benefactor and great humanitarian.

A capable librarian was secured and the accumulation of materials was started. This has been going forward until now the library has 18,481 volumes. The number of books is 5,835. Most of these are modern and deal



Blackman Sanatorium, Atlanta

with all the specialties of medicine. However, many of the older classics are on the shelves for those who like to trace back the development of medicine, and gain inspiration from the writings of the old masters. Bound journals with complete files total 12,646 volumes. Journals with incomplete files number 11,653 volumes. Reprints total 22,000. The number of current periodicals covering all phases of medicine is 347. Foreign journals subscribed for are 98. The list includes British 48, German 28, and French 22.

The library service is open to all and in order to serve the greatest number, a convenient branch is operated at the Grady Hospital. Its value as an educational factor is attested by the many who frequent it daily for information. Visits to the reading rooms during 1938 were 30,546, and the number of books lent was 5,892. The staff consists of a chief librarian, two full-time assistants and three student helpers. They are at all times ready to lend books, procure books not on hand from other libraries and give a complete bibliographic service.



## EMORY UNIVERSITY SCHOOL OF MEDICINE: LOOKING FORWARD

RUSSELL H. OPPENHEIMER, M.D.  
*Emory University*

Since this *Journal* has previously published the story of the beginning of medical education in Atlanta and the manner in which the early schools came into existence and finally merged to form a single school which became the School of Medicine of Emory University, I will devote this article to brief comment on some of the lessons to be drawn from the history of the past and their implications for the School of Medicine in the future.

One of the striking things about earlier medical education is the part played by practitioners of medicine. Not only were they teachers in the clinical fields, but they took a large part in the instruction of students in anatomy, physiology and the other fundamental sciences. In doing these things they gave unsparingly of their time and effort.

Their idea of the conduct of a medical school was to give students those things which they would need in the practice of medicine and to give them in a way they could subsequently be used. Although it may be said that some of these men were not skilled in the art of teaching, their approach was from the standpoint of experience in practice which probably gave the fundamental sciences the atmosphere of "in vivo."

The subsequent extension of knowledge or, one might say, the increase of information in these fundamental subjects resulted in the necessity of developing full-time teachers for them. Many of these full-time preclinical teachers have no experience in practice. Instruction in these subjects naturally became a more purely academic discipline. In recent years the wisdom of this changed approach has been called into question. Some steps have already been taken to bring into closer relationship the clinical and preclinical subjects. At present these are rather meager. In the future, medical education will probably find more effective means of bringing them



W. W. Orr Doctors Building, 478 Peachtree Street, N. E.  
Atlanta

together as the single foundation of medical practice rather than as two units in the educational structure.

The advance which has been made in clinical teaching has been characterized by the expression "to learn by doing." The medical student actually examines, studies, observes, and treats patients under the guidance and supervision of capable teachers. This is quite in contrast to the earlier method, in which the student listened to the clinician tell what he could about disease as he saw it in his own practice. It must be remembered, however, that the science of medicine in its facilities for diagnosis and treatment advanced so rapidly that the change from purely didactic instruction to practical study of patients at the bedside and in the clinic became a necessity. In an effort to provide order and system to clinical instruction medical schools turned to the use of some form of paid clinical teacher. In some instances the use of the full-time clinical faculty has caused the teaching of clinical medicine to lose something of the practical

usefulness which characterized the older clinical teaching. Just where the line of balance between paid and voluntary clinical teachers will fall is yet to be determined.

Interwoven in the question of medical education and the development of medical science is another question of even deeper significance. I refer to the problems of practice; that is, the relation of medical science to the public. The medical profession has been so keenly interested in the development of its knowledge of health and disease, in the provision of methods and facilities for the diagnosis of disease, in the recognition of the fuller meaning of disease, and in more effective means of prevention or cure, that it has given little thought to a consideration of the manner in which its expanded skills may be made available to the public. To state it in a purely commercial fashion—we have developed the goods. Do our means of distribution make them available to the public?

Looking again at the rapid advances which are occurring in medical science, one becomes



Medical Arts Building, 384 Peachtree Street, N. E., Atlanta

impressed with the fact that medical education in the future cannot cease with the granting of the degree. Even more important than the undergraduate training of medical students is the work of helping practitioners of medicine in the real problem of knowing the advances which are taking place and of learning how to bring them into usefulness in their own practice. Although the many medical journals published in this country make a beginning in this direction, the ability of the practitioner soundly to evaluate and utilize new and changed ideas will depend upon easy and frequent opportunities for personal contact and experience.

What then of the Emory University medical school of the future? It should be visualized as a fulfilment of the objectives which have been suggested in this brief review. Perhaps the vision can be indicated in the simple expression, "a medical center"; that is, if "medical center" is used in its broadest and most effective sense. Some of the objectives a medical center should seek to attain are:

1. The soundest possible education for undergraduate students who are preparing to become doctors.

2. The provision of adequate facilities for inquiry into the meaning of health and disease; intimate research into their scientific nature and thoughtful investigation of their clinical manifestations.

3. Opportunities for graduates in medicine to prepare themselves as internes and residents for general practice or for practice in one of the special fields.

4. The development of teachers in all fields of medicine.

5. A close relationship between the medical center and doctors already in practice. Practitioners should find in the medical center those things they wish for their own interest or advancement. The relationship must be so close that they feel themselves a part of the medical center; in fact, they should be a part of it.

6. The establishment of public relations which are characterized by faith and understanding. With the establishment of proper public relations all the questions which now beset the medical profession would disappear. With adequate understanding and faith, the public will turn to us rather than to the cultists and patent medicines. The profession will

receive public commendation rather than public criticism.

Of course, in the developing of a medical center certain very tangible things are necessary: a well organized and supported medical school, an adequate medical library, adequate hospital clinical facilities, and the necessary buildings for class rooms and the work of research and investigation. The whole picture is easy to visualize and should be easy to achieve, if we are all willing to put our minds to the problem and our shoulders to the wheel.

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## TRANSITORY BUNDLE BRANCH BLOCK AND NODAL RHYTHM

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### *Report of Case*

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JOSEPH C. MASSEE, M.D.  
*Atlanta*

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In recent literature attention has been called to cases of transitory bundle branch block. Sometimes the condition exists in normal individuals with no other evidence of cardiac disturbance. In others there is an associated short P-R interval. These individuals are also thought to be normal except for possible anatomic variations in the conduction mechanism (bundle of Kent). In a third group the transitory bundle branch block is an evidence of an incipient heart disease which eventually progresses to a permanent defect. The case here reported is of interest because the condition seemed to be associated with no other heart disease; it was accompanied by nodal rhythm at times; and the transition from normal to nodal rhythm and bundle branch block and back to normal rhythm is shown in the electrocardiogram.

### *Case Report*

A 43-year-old white male salesman "caught cold" on April 18, 1937. He began to suffer from a constant sense of tightness in his chest with a soreness or pain under the sternum. He coughed frequently, bringing up about a teacupful of frothy white sputum in 24 hours. The coughing occurred in paroxysms and after each paroxysm he was short of breath and exhausted.

His physician, Dr. W. Frank Wells, treated him for acute bronchitis for three weeks. When he did not improve, Dr. Wells had his chest x-rayed. This showed an increased density of mottled appearance in the left primary bronchial area and increased bronchial markings throughout both lungs. The heart shadow was



normal in size and shape but because of the pain in his chest an electrocardiogram was requested.

About five o'clock the next morning, before the electrocardiogram was made, he had an attack of coughing of great severity following which he went into a condition of shock with ashen pallor and sweating. He feared he would die of weakness and his physician feared it too, when he saw him about thirty minutes later. However, in a few hours he felt well enough to come to the office for an electrocardiogram.

His past history was negative except for measles and mumps in childhood, influenza attacks in 1918 and 1934, and an appendectomy in 1934. He had always considered himself a strong healthy man.

Family history was irrelevant.

He smoked fifteen cigarettes daily and indulged in alcohol only occasionally.

Physical examination revealed a well developed and nourished man of 43 years, apparently weak but not otherwise uncomfortable. Temperature was 97.8; pulse 56; blood pressure 120/95, right arm; 100/90, left arm. Tonsils were small but infected and the pharynx was moderately inflamed. The lungs were resonant throughout and expanded equally. Breath sounds were normal except over the left primary bronchial area where they were diminished in intensity and a few sibilant rales were heard.

The heart apex impulse was not visible or palpable. The right border dullness extended 1 cm. from mid-sternal line, the left extended 8 cm. from mid-sternal line. The sounds were of only fair quality. No murmurs were heard.

While the electrocardiogram was being taken it was observed that the character of excursion of the string was changing frequently. For this reason, several graphs were made of each lead. The result was the interesting tracings described below.

The patient was advised to go home and stay in bed. His bronchitis received further treatment and gradually over a period of three weeks he recovered. His electrocardiogram on May 31 was normal in every respect.

#### *Analysis of Electrocardiograms*

*Lead I*—P waves are absent. The QRS complexes are widened with a slurred or notched apex of R wave. The T wave is inverted, in opposite direction to the R wave. The tracing is indicative of nodal rhythm with left bundle branch block.

*Lead II-A*—While the leads were being changed the heart had apparently reverted to normal rhythm and conduction mechanism. The first two cycles in this lead are normal with a P-Q interval of 0.18 sec., and a normal QRS complex and T wave. In the third cycle, the P-Q interval has shortened to 0.16 sec. and there is a slur on the upstroke of the R wave. In the fourth cycle the P-Q interval has shortened further to 0.12 sec., and there is a complete bundle branch block with QRS of 0.12 sec. The T wave is higher and more peaked than formerly. In the fifth cycle the P-Q interval has shortened to 0.10 sec., and the QRS and T waves are as in cycle 4. In cycle 6, the upstroke of the P wave blends with the slurred and notched upstroke of the R wave. In cycle 7 the P wave is lost in the QRS complex which now occupies 0.14 sec. Thus this

lead shows the complete and gradual transition from a normal mechanism through a gradually shortening P-R interval to a nodal rhythm with complete bundle branch block.

In *Lead II-B*, we see the transition from nodal rhythm and complete bundle branch block back to a short P-R interval and complete bundle branch block. The first two cycles have no P waves visible. The third cycle shows the upstroke of the P wave widening the R wave. In the fourth cycle, the P wave is distinct with a P-R interval of 0.08 sec., but still a complete bundle branch block. In cycles 5, 6, and 7, the P-R interval remains at 0.10 sec., with the QRS complex of 0.12 sec.

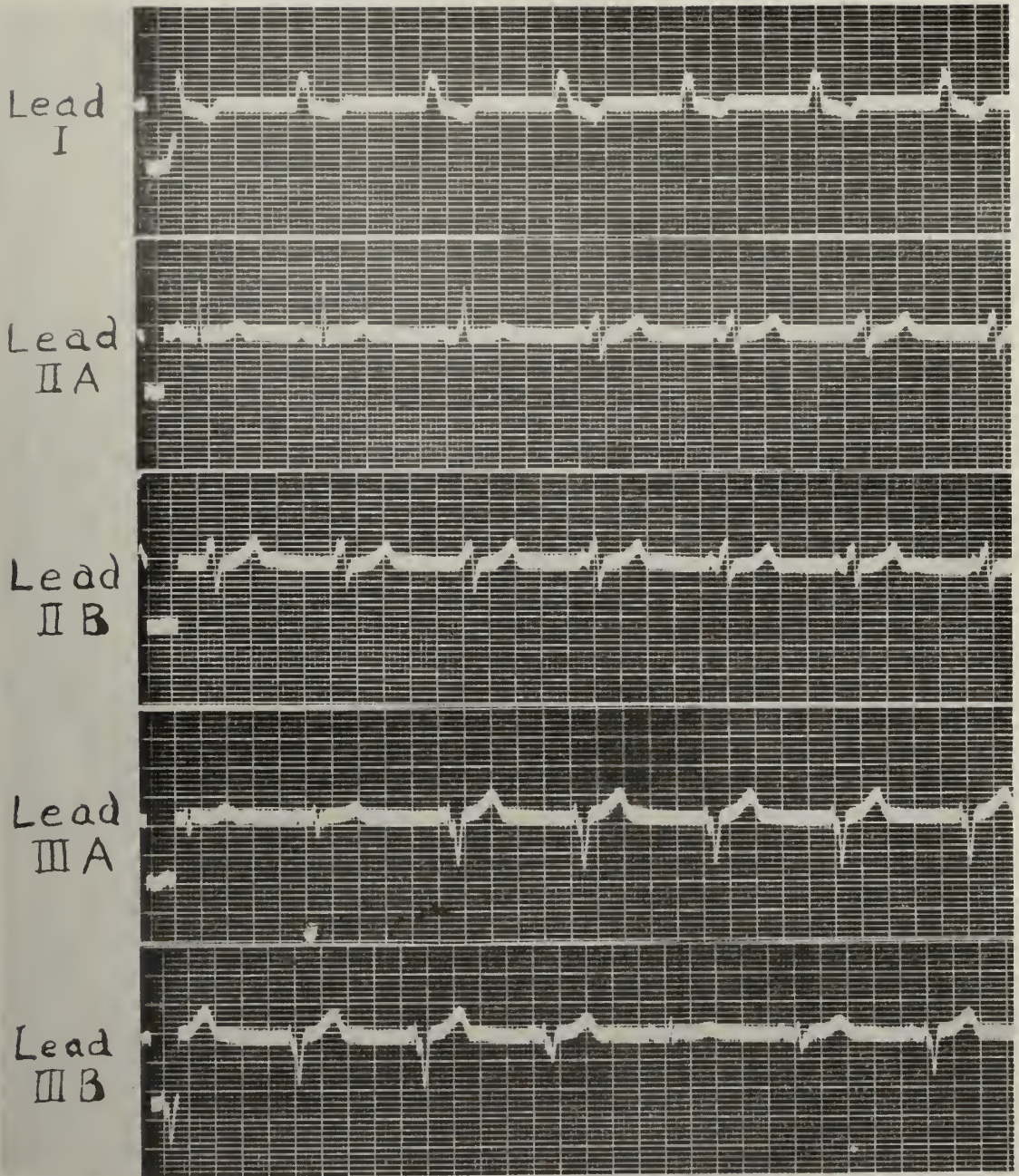
In *Lead III-A*, the first cycle P wave is lost in the standardization deflection, but the first QRS complex is a small normal curve. The T wave is low and rounded. The second cycle has a small normal P wave with a P-R interval of 0.16 sec. The QRS has a notched upstroke of the S wave. Cycle 3 has a P-R interval 0.06 sec., with a QRS complex of 0.12 sec. The S wave is wide and slurred and the T wave high and peaked but in the opposite direction to the S wave. In cycles 4, 5, 6, and 7, the P waves are lost in the QRS complexes which are 0.12 sec. wide; the condition is nodal rhythm with complete bundle branch block.

In *Lead III-B*, the first cycle after the standardization is that of nodal rhythm and complete bundle branch block. In cycle 2, there is a P wave with P-R interval of 0.06 sec., and a slurred QRS of 0.12 sec. The third cycle has a P-R interval of 0.10 sec., and QRS of 0.12 sec., but the amplitude of both the S and T waves is less than formerly. In cycle 4 the P-Q interval is 0.16 sec., and the QRS normal, lasting 0.06 sec. In cycle 5, the P-Q interval has shortened again to 0.12 sec., the QRS is 0.10 sec., and the T wave higher. Cycle 6 has a P-Q interval of 0.12 sec., and QRS of 0.12 sec., and the configuration of bundle branch block. Here the transition has been from nodal rhythm with bundle branch block to normal rhythm and back to a short P-Q interval with complete bundle branch block.

Many more tracings were obtained at this time, but for the most part they were entirely nodal rhythm and complete bundle branch block. The tracings illustrated show the transitional changes, and are the only ones I have seen showing the mechanism of the change from normal to nodal rhythm and bundle branch block. Nineteen days later the patient's electrocardiogram was normal. No deviation from normal in his electrocardiogram could be caused by exercise, ocular pressure or vagus pressure in the neck.

#### *Comment*

Transitory bundle branch block has been known to occur in toxic or infectious states, congestive heart failure, coronary thrombus, when the heart is under increased demand of work, as in tachycardia, under vagotonic influence and from large doses of digitalis. It may be associated with structural heart damage or it may be a purely functional phenomenon.



Wolf, Parkinson and White<sup>1</sup> in 1930 reported a series of eleven cases of bundle branch block with short P-R interval in healthy young people prone to paroxysmal tachycardia and established the condition as a clinical entity. In some of these cases, release of vagus tone by atropin or exercise caused transition from bundle branch block to normal with prolongation of P-R interval. Therefore, they consider the condition functional in character and dependent on vagus influences. Recently L. F. Bishop<sup>2</sup> has added another case of his own to this group and

reviewed 44 cases collected from the literature. Since not all these cases respond to atropin or exercise, he concluded that the phenomenon may not be entirely due to excess of vagus tone.

Wolforth and Wood hypothecate<sup>3</sup> an accessory pathway of auriculoventricular conduction tissue (bundle of Kent) as the mechanism by which the short P-R interval and prolonged QRS complexes are produced. The bundle of Kent lies between the right auricle and right ventricle in the right lateral border of the heart. It shows variations in location



as well as in degree of conductivity.

A case has been reported in which the transient bundle branch block was apparently caused by lack of oxygen or excessive rate (Baker).<sup>4</sup> When the heart beat rapidly from exercises, the abnormal complex appeared. When oxygen was given the I. V. conduction improved even though the rate remained rapid. If the rate was slowed by rest and digitalis without oxygen, normal complexes resulted. Likewise Harris and McGuire<sup>5</sup> reported patients who were previously free of cardiac disturbances; then cardiac disturbances, such as pulmonary edema, developed acutely followed in a few hours by bundle branch block. When the stress of great demand on the circulation, resulting in myocardial fatigue, cleared up, the disturbances in conduction were also relieved.

Robinson<sup>6</sup> suggests that while changes in conduction may occur without anatomic lesions, but purely as result of functional fatigue, there are cases where the production of acid metabolites in the ventricular structure interfere with nutrition of the myocardium by causing sclerosis of the coronaries. During temporary restoration of circulation, the heart recovers enough to permit normal conduction. Thus Willius and Anderson<sup>7</sup> concluded that transient block may be a manifestation of gradual development of a permanent disturbance, the disorder being transient only in its inception.

The mechanism of transient and recurrent bundle branch block has been splendidly discussed recently and at length by Samuel Eidlow,<sup>8</sup> who contributed a case report in which there was evidence of disease of the conduction tissue.

#### Discussion

While not attempting to clear up the mechanism of the production of transitory bundle branch block in all cases, this case is thought to be interesting because it shows the actual transition from normal to nodal rhythm and bundle branch block and back to normal again. The individual has shown no evidence of heart disease before or since. The disorder in conduction and in the location of the pacemaker may have been due to toxic effects on the heart muscle combined with acute oxygen lack following paroxysms or severe coughing which resembled whoop-

ing cough. However, the gradual dislocation of the pacemaker from the S-A node across the auricle to the A-V node seems to follow an orderly path and could be more easily explained by vagotonic influences than could the subsequent bundle branch block. In this case there seems to be nothing that would point to a bundle of Kent because the utilization of accessory conduction fibres in shortening the P-R interval would cause a sudden change in P-R interval rather than the gradual one observed here.

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### TRAUMATIC HEMOTHORAX TREATED BY ARTIFICIAL PNEU- MOTHORAX AND AUTO- TRANSFUSION

#### *Report of Case\**

BERNARD P. WOLFF, M.D.

*Atlanta*

In 1885 the Scottish surgeon, John Duncan,<sup>1</sup> reported the first case in which autotransfusion was used. He collected blood lost during an amputation of the leg and injected it into the femoral vein of the stump with good results. Watson and Watson,<sup>2</sup> in August, 1936, reviewed the American literature on the subject and collected 277 cases to which they added two of their own. Of this number, five had hemothorax, all of which were traumatic in origin. Head<sup>3</sup> strongly advocates the use of autotransfusion in the treatment of hemothorax and mentioned its use in a case of hemorrhage resulting from intrapleural pneumolysis. Eleven cases of hemothorax treated with autotransfusion have been reported in the American literature.

\*From the Tuberculosis Service, First Medical Division, Bellevue Hospital, and the Department of the Practice of Medicine, Columbia University College of Physicians and Surgeons, New York, N. Y.



23456 In two patients mild reactions occurred; one following the use of uncitrated blood removed from the chest at least 36 hours after the injury. There were no fatalities.

Prior to the World War cases of wounds of the lung complicated with hemorrhage and pneumothorax were treated by aspiration of the fluid and air or thoracotomy. During the war it was realized that, except in cases where excessive compression of the lung already existed, the air should not be removed, but rather more air introduced to compress the lung in an attempt to control further bleeding. Morelli<sup>7</sup> demonstrated that more than two liters of fluid were necessary to compress the lung adequately, and that air is more valuable in compressing the lung than any other medium. By raising the intrapleural pressure to what was thought to be approximately that of the intrapulmonary venous pressure he was able to control the hemorrhage except when a large artery had been injured. Using this method Morelli reduced his mortality rate from 34 per cent to 4 per cent. Since 1918, the use of pneumothorax in treatment of wounds of the lung has received widespread acceptance both in this country and abroad.

#### *Report of Case*

A white boy, aged 19, was admitted to the First Surgical Division of Bellevue Hospital (Dr. J. A. McCreery, Director), Nov. 11, 1936. About thirty minutes prior to entrance, he had received a stab wound in the left chest with a small-bladed knife. He felt little pain or discomfort immediately following the injury but, a little later, developed a sharp pain in the left chest and coughed up a small amount of bright red frothy sputum. He boarded a bus and immediately came to the hospital. Enroute he noticed slight breathlessness for the first time.

At the time of admission he was well developed, well nourished and somewhat pale. He was slightly dyspneic and there was a tinge of cyanosis to the lips and nail beds. He had no cough or hemoptysis. The trachea was in the mid-line. The left hemothorax was almost immobile and there was a small clean two-inch stab wound in the region of the sixth left intercostal space just at the midclavicular line. Aside from a tympanitic percussion note over the lower half of the chest on the left anteriorly, no abnormal signs were elicited. The area of cardiac dullness was normal. There were no murmurs. The pulse was of good quality with a rate of 125 per minute. A diagnosis of stab wound of the chest with possible hemopneumothorax was made. The wound was cleansed with iodine and alcohol and a dry dressing applied. Three thousand units of tetanus antitoxin were given.

Within two hours his condition changed profoundly and he went into shock. He was cold and clammy, sweating profusely and could not be aroused. He was deeply cyanotic and markedly dyspneic. The pulse was rapid and barely palpable. Blood pressure averaged 90 mm. systolic and 60 mm. diastolic. Examination of the chest revealed signs of a large pleural effusion on the left with marked displacement of the heart and trachea to the right. The patient was immediately transferred to the Tuberculosis Service (Dr. J. A. Miller, Director), where fluoroscopic examination showed the entire left chest filled with fluid and the heart and mediastinum displaced to the right, the left border of the heart being to the right of the spine. There was no pneumothorax. Aspiration of the chest yielded 1450 cc. of unclotted blood. This was collected in a sterile flask containing approximately 150 cc. of a 2.5 per cent aqueous sodium citrate solution. Seven hundred and fifty cubic centimeters of air were introduced into the pleural cavity in an effort to prevent further bleeding. After the introduction of air, the intrapleural pressures were read at  $-6$ ,  $-2$  cm. of water. Caffeine, whiskey and codeine were given at the beginning of the aspiration. Following the aspiration there were considerably less cyanosis and dyspnea.

Using a Lindeman type recipient needle and the usual infusion set, the blood was allowed to gravitate rapidly into the median basilic vein until approximately 200 cc. of the solution had been given. The flow was then regulated to about 60 drops per minute and was continued until the entire 1600 cc. of citrated blood had been returned to the patient. About six hours were required for the procedure. At no time while the infusion was running or afterwards was there any evidence of reaction. After a few hundred cubic centimeters of blood had entered the vein the improvement was striking. The signs of shock diminished and the patient was able to chat freely, showing great interest in the treatment. The left half of the chest was then tightly strapped and the patient was placed in an oxygen tent with instructions to lie on his left side for several hours. Frequent doses of codeine were given to allay coughing.

Six hours after the aspiration there was a moderate amount of subcutaneous emphysema in the chest wall and signs of a small hydropneumothorax remained. There was minimal spasm and tenderness in the upper quadrants of the abdomen which was thought to be a pleural reflex phenomenon. This latter disappeared in the course of a few hours. Two days later fluoroscopic examination revealed complete absence of the pneumothorax with a very small amount of fluid present in the left costophrenic angle. The heart and mediastinum had returned to the normal position. The subcutaneous emphysema absorbed completely in a few days.

A roentgenogram on the 5th hospital day demonstrated a small amount of fluid still present in the left costophrenic sinus and a fine soft mottling in the base of the right lung field which was thought to be pneumonitis resulting from blood aspirated into the lung. A second film taken on the 7th day was entirely clear. A small transfusion of 200 cc. of whole blood was given on the 5th hospital day.

(Continued on page 126)

# COME TO ATLANTA

to the

NINETIETH ANNUAL SESSION

MEDICAL ASSOCIATION OF GEORGIA

April 25-28, 1939

Fulton County Medical Society Welcomes You!

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Atlanta Biltmore  
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Hotel  
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**W**elcome to Atlanta for our  
*ninetieth meet*

**E**xtend this invitation also  
*to your wife.*

**L**ots of friends you will  
*greet*

**C**ome early and stay until it  
*ends*

**O**n your attendance the suc-  
*cess of the meeting de-*  
*pends*

**M**uch will be done for your  
*profit and pleasure*

**E**xtending our hospitality  
*in boundless measure.*

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CONVENTION HEADQUARTERS

April 25-28, 1939

*For any further information or assistance write the Fulton County Medical Society*

38 Prescott Street, N. E., Atlanta

## THE PRESIDENT'S PAGE

### ATLANTA AND THE FULTON COUNTY MEDICAL SOCIETY WILL BE HOSTS TO MEDICAL ASSOCIATION OF GEORGIA

On other pages of this *Journal* will be found the programs of the MEDICAL ASSOCIATION OF GEORGIA and its Woman's Auxiliary.

Atlanta, great educational center and gateway city of the South, is our meeting place this year. Its location, hotel accommodations, newly-equipped auditorium and transportation facilities make this city a desirable place to meet, not to speak of the hospitality of Atlanta's citizens. Numerous places of historic interest in and around this great city, including Stone Mountain, one of the world's wonders, attract thousands of visitors each year. Shopping centers in Atlanta are not excelled by any other city in the United States.

The Fulton County Medical Society will be our host. This society comprises more than one-fourth of the MEDICAL ASSOCIATION OF GEORGIA. The programs sponsored by this society are unsurpassed by any other county medical society in this country. Its various committees, which almost number those of the State Medical Association, are to be congratulated for the work they have done, and for their cooperation with other organizations. Our Atlanta members are near the center of the State's activities and have rendered great service to every citizen of Georgia. If it were not for the loyalty and work of some Atlanta physicians our legislative program would not make progress.

The Medical Service Bureau of this society was organized for the purpose of helping a large group of people whose incomes are too low to pay ordinary medical and hospital fees, but which are too high to make them eligible for treatment in municipal hospitals. During the past few years our profession has been severely criticized because of the lack of adequate medical care. The establishment of this Bureau was an effort of the Fulton County Medical Society to solve the problem in its community. The Bureau serves more than 1,200 patients each month, but with the active support of each member of the medical society it could handle many times this amount of work. Some of our insurance companies are writing insurance for employees of various organizations at a rate too low to be profitable. Such practice will soon lead to the employment by these same companies of full-time medical personnel to do their medical work, which will react against many members of our profession. Increased activity of the Medical Service Bureau would prevent such malicious practice.

Three cancer clinics are available to the members of the Fulton County Medical Society. Their efforts to control this dreaded malady are remarkable. High honor to one of Atlanta's great citizens, Dr. J. L. Campbell, whose work has meant so much to some of these clinics and to the Cancer Commission of the MEDICAL ASSOCIATION OF GEORGIA. Through his untiring work Georgia has the distinction of being the first southern state, and the fourth in the United States, to have a cancer control program. This program, under the auspices of our State Board of Health, includes many features for the benefit of indigent cancer sufferers. Already several treatment centers have been established throughout the State for the care of such patients. Dr. Campbell has had long years of service as a teacher of surgery and his many pupils in this and other states love and admire him.

Other activities of our largest county medical society include public health problems, the planning of a great medical center in cooperation with Emory University and Grady Hospital, sponsorship of post-graduate medical education through the Atlanta Post-Graduate Assembly, and numerous lectureships, all of which keep the society active throughout the year.

The Southeastern Surgical Congress was organized by Atlanta surgeons. This organization will hold its tenth anniversary meeting in Atlanta this year. The officers of the congress anticipate an attendance of more than 1,500 surgeons.

The achievements of Emory University School of Medicine, one of the two class A medical schools in Georgia, are due to the work of Atlanta physicians. Graduates of this medical school fill our State, and many are found in other states and throughout the world. This is indeed a great medical school, with its excellent equipment, fine teaching staff and large volume of clinical material.

THE MEDICAL ASSOCIATION OF GEORGIA appreciates Atlanta's invitation to hold its Ninetieth Assembly there. Let every Georgia physician and his wife prepare now to attend the session, April 25-28. The scientific program is full of good material. Our host is most gracious. Surely we will have a pleasant and profitable meeting.

GRADY N. COKER, M.D.



**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

MARCH, 1939

## WELCOME TO ATLANTA

The meeting in Atlanta of the Medical Association of Georgia, April 25-28, ushers in the Ninetieth Assembly of this notable and historical organization. During these nine decades of enviable achievement the members have always stood for progress in health education and for sound medical practice. The record of the cultural development of every community, both large and small in our State, reveals emblazoned on its proud escutcheon the names of its civic, educational, religious and medical leaders. From the saddle-bag practitioner of Colonial days to the erudite clinician and surgeon of today, the physician's progress has been steady and secure.

The history of medicine repeatedly emphasizes the value of professional discussions and exchange of thoughts and ideas. From early antiquity to the present enlightened era the association of confreres has continued with increasing fidelity and mutual benefit.

It is but natural then, that almost a century ago the physicians of Georgia, in anticipation of greater development in medicine and surgery, decided to bring together the small groups from all sections, particularly the Georgia Medical Society of Savannah, organized in 1804, and the Medical Society of Augusta, incorporated in 1822, to establish a unified organization. From the labor of those early physicians came the birth of the Medical Association of Georgia in Macon in 1849.

During its long years of faithful service to our State, the Association has honored Atlanta with many annual sessions. This year our city and the Fulton County Medical Society again are hosts to the Medical Association of Georgia. To many of you it will seem like "Home Coming Week," for here is located Emory University, your Alma Mater, or perhaps the hospital in which you were trained. And those of you from other schools and hospitals will find here your friends and colleagues of bygone days, eager to see you

and talk over old times. The alumni dinners for the graduates of the University of Georgia School of Medicine and Emory University School of Medicine will unite many friends.

Atlanta is beautiful in April. The woodlands, resplendent with the freshness of verdant springtime and brightened by myriads of snowy dogwood blooms, bring romance to maidens and boldness to bachelors. It is refreshing to busy housewives and invigorating to overworked physicians. Life seems brighter in this garden spot of Georgia. The numerous burdens and perplexing problems fade from the mind of the visiting physician like mist 'neath the summer sun. One is in a receptive mood for papers and dissertations. Inspiration for essayists and discussors abounds.

The entertainment prepared for you during the convention is planned for the golfer, the marksman and the dancer. However, the highlight of social activities will be the joint banquet for the physicians, their wives and sweethearts, followed by the annual dance.

This should be the best meeting in the brilliant history of the Medical Association of Georgia. The scientific program is excellent and the guest speakers are unsurpassed.

Everything has been arranged to make your visit a profitable and happy one. May all those who attend cherish it as a pleasant memory.

The Fulton County Medical Society, the Medical School and the capital city of Georgia—your Atlanta—welcome you.

EDGAR H. GREENE, M.D., *President  
Fulton County Medical Society.*

### RADIO BROADCAST FOR NEXT ANNUAL SESSION

"Through the cooperation of the Atlanta Convention and Visitors' Bureau and the Atlanta Journal, a special program featuring high lights of the annual session of the Medical Association of Georgia will be presented on the Welcome South, Brother program over radio station WSB (740 Kc), 10:30 to 11:00 o'clock P. M. Central Standard time, Thursday, April 20th. Listen for Nabor Faber's interview with Dr. Edgar H. Greene, president of the Fulton County Medical Society."

Dr. Wm. H. Myers, Savannah, president-elect of the Association, will speak over Radio Station WSB, Atlanta Journal Editorial Hour, April 28, 8:30 P. M.



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The officers of the Medical Association of Georgia urge its members to attend the Ninetieth Annual Session at the Biltmore Hotel, Atlanta, April 25, 26, 27, 28, 1939.

The House of Delegates will convene at 2:00 P. M., Tuesday, April 25. The scientific session will open on Wednesday, April 26, at 9:00 A. M., Central Standard Time.



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### ACKNOWLEDGMENT

Less than a century ago there was no Greater Atlanta; indeed the ground upon which this city stands was no different from many other areas of North Georgia. With the advance of civilization toward the West came the need for better transportation facilities. Surveys were made and plans charted. From these emerged a terminus which connected railroads, therefore the first name of the small village was changed from Whitchall to Terminus; still later the town was given the name Atlanta.

Atlanta grew to considerable size before the War Between the States. During that war the city was burned and a new start had to be made, but ashes, defeat and poverty did not diminish the enthusiasm of the city's early citizens: they saw greater opportunities ahead and continued to build. Many of those men and women lived to see their beloved "Gate City" grow to a city of more than one hundred thousand people, and their children and grandchildren have lived to see prophecies come true: a city with almost one-half million people.

This number of *The Journal* is replete with information about Atlanta. Each contributor has tried to record facts; all have worked to the end that the reader will see Atlanta as it has been, and is today. The Editorial Staff expresses thanks to them, all of whom are true Atlantans.

Applications and information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Bldg., Pittsburgh, Pa., in reference to examinations by the American Board of Obstetrics and Gynecology.

## PROGRAM MEDICAL ASSOCIATION OF GEORGIA OFFICERS AND COMMITTEES 1938-1939

*Ninetieth Annual Session, Atlanta  
April 25, 26, 27, 28, 1939  
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 C. K. Sharp.....President, 1928-1929



Wm. R. Dancy.....	President, 1929-1930
A. G. Fort.....	President, 1931-1932
M. M. Head.....	President, 1932-1933
C. H. Richardson.....	President, 1933-1934
Clarence L. Ayers.....	President, 1934-1935
Jas. E. Paullin.....	President, 1935-1936
B. H. Minchew.....	President, 1936-1937
Geo. A. Traylor.....	President, 1937-1938

## COUNCIL

J. A. Redfearn, Chairman.....	Albany
C. Thompson, Clerk.....	Millen

## Councilors

1. C. Thompson (1939).....	Millen
2. J. A. Redfearn (1939).....	Albany
3. J. C. Patterson (1939).....	Cuthbert
4. Kenneth S. Hunt (1939).....	Griffin
5. W. A. Selman (1940).....	Atlanta
6. H. G. Weaver (1940).....	Macon
7. M. M. McCord (1940).....	Rome
8. J. E. Penland (1940).....	Waycross
9. C. B. Lord (1941).....	Jefferson
10. Harry L. Cheves (1941).....	Union Point

## Vice-Councilors

1. R. V. Martin (1939).....	Savannah
2. Chas. H. Watt (1939).....	Thomasville
3. J. Cox Wall (1939).....	Eastman
4. Enoch Callaway (1939).....	LaGrange
5. Marion C. Pruitt (1940).....	Atlanta
6. H. D. Allen (1940).....	Milledgeville
7. Z. V. Johnston (1940).....	Calhoun
8. Wm. W. Turner (1940).....	Nashville
9. J. K. Burns (1941).....	Gainesville
10. C. E. Wills (1941).....	Washington

## COMMITTEES

## Scientific Work

Chas. H. Richardson, Chairman (1939).....	Macon
John E. Walker (1940).....	Columbus
Glenville Giddings (1941).....	Atlanta
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

## Public Policy and Legislation

Spencer A. Kirkland, Chairman (1941).....	Atlanta
Ed. H. Greene, Co-Chairman (1940).....	Atlanta
J. L. Campbell (1939).....	Atlanta
Clarence L. Ayers.....	Toccoa
S. T. R. Revell.....	Louisville
H. H. Askew.....	Atlanta
Harold P. McDonald.....	Atlanta
Claude Griffin.....	Atlanta
A. J. Mooney.....	Statesboro
J. C. Patterson.....	Cuthbert
W. F. Reavis.....	Waycross
M. F. Cochran.....	Newnan
Hal M. Davison.....	Atlanta
Ralph N. Johnson.....	Rome
J. Weyman Davis.....	Athens
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta
T. F. Abercrombie, Director, Department of Public Health, State of Georgia.....	Atlanta

## Medical Defense

Allen H. Bunce, Chairman (1943).....	Atlanta
Wm. A. Mulherin (1939).....	Augusta
A. R. Rozar (1941).....	Macon

J. A. Redfearn, Chairman of Council.....	Albany
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

## Hospitals

D. Henry Poer, Chairman (1943).....	Atlanta
C. D. Whelchel (1939).....	Gainesville
L. P. Holmes (1940).....	Augusta
Arthur D. Little (1941).....	Thomasville
R. H. Oppenheimer (1942).....	Atlanta

## Abner Wellborn Calhoun Lectureship

Jas. E. Paullin, Chairman (1943).....	Atlanta
H. I. Reynolds (1939).....	Athens
Eugene E. Murphey (1940).....	Augusta
Geo. B. Smith (1941).....	Rome
Frank K. Boland (1942).....	Atlanta

## Medical Economics

C. W. Strickler, Chairman (1940).....	Atlanta
Major F. Fowler (1943).....	Atlanta
C. L. Ridley (1941).....	Macon
B. T. Beasley (1942).....	Atlanta
J. G. McDaniel (1939).....	Atlanta

## Necrology

Stewart R. Roberts, Chairman.....	Atlanta
R. M. Moore.....	Waleska
R. S. Leadingham.....	Atlanta
C. B. Crawford.....	Blue Ridge
Horace Darden.....	Sparta

## Medical History of Georgia

## Sub-Committee

Frank K. Boland, Chairman.....	Atlanta
L. Minor Blackford.....	Atlanta
Allen H. Bunce.....	Atlanta
Wm. H. Kiser.....	Atlanta
Geo. A. Traylor.....	Augusta
C. M. West.....	Atlanta
Mrs. V. H. Bassett.....	Savannah

## Awards

William R. Dancy, Chairman.....	Savannah
Stewart D. Brown.....	Royston
Arthur G. Fort.....	Atlanta
W. F. Reavis.....	Waycross
W. W. Chrisman.....	Macon

## Crawford W. Long Exhibit

## New York World's Fair

Mrs. Jas. N. Brawner, Chairman.....	Atlanta
Mrs. Bonar White.....	Atlanta
Craig Barrow.....	Savannah
Frank K. Boland.....	Atlanta
Ralph H. Chaney.....	Augusta
T. J. Collier.....	Atlanta
C. E. Lawrence.....	Atlanta
C. W. Daniel.....	Atlanta

## Cancer Commission

Jas. L. Campbell, Chairman.....	Atlanta
E. L. Bishop, Co-Chairman.....	Atlanta
Jas. J. Clark, Secretary.....	Atlanta
Julian A. Quattlebaum.....	Savannah
A. J. Mooney.....	Statesboro
Chas. H. Watt.....	Thomasville
R. F. Wheat.....	Bainbridge
R. C. Pendergrass.....	Americus
W. A. Coleman.....	Eastman
Kenneth S. Hunt.....	Griffin

Enoch Callaway.....LaGrange  
 Chas. C. Harrold.....Macon  
 Jas. A. Fountain.....Macon  
 W. P. Harbin, Jr.....Rome  
 P. O. Chaudron.....Cedartown  
 Kenneth McCullough.....Waycross  
 T. G. Ritch.....Jesup  
 Hartwell Joiner.....Gainesville  
 W. B. Schaefer.....Toccoa  
 J. W. Davis.....Athens  
 Wm. H. Roberts.....Augusta

*Advisory Committee on Orthopedics*

*State Department of Public Welfare*

F. G. Hodgson, Chairman.....Atlanta  
 J. H. Kite.....Atlanta  
 H. M. Michel.....Augusta  
 M. Hines Roberts.....Atlanta

*Advisory Committee on Ophthalmology*

*State Department of Public Welfare*

Grady E. Clay, Chairman.....Atlanta  
 S. J. Lewis.....Augusta  
 E. N. Maner.....Savannah

*Syphilis Committee*

John W. Brittingham, Chairman.....Augusta  
 Jas. C. Metts.....Savannah  
 Rudolph Bell.....Thomasville  
 Willis P. Jordan.....Columbus  
 Geo. L. Walker.....Griffin  
 Jack C. Norris.....Atlanta  
 Ernest Corn.....Macon  
 John M. McGehee.....Cedartown  
 Lovick W. Pierce.....Waycross  
 J. L. Meeks.....Gainesville

*Advisory—Woman's Auxiliary*

Jas. N. Brawner, Chairman.....Atlanta  
 W. A. Coleman.....Eastman  
 J. M. Barnett.....Albany  
 W. D. Gholston.....Danielsville  
 R. S. O'Neal.....LaGrange  
 Ralph H. Chaney.....Augusta

*Post-Graduate Study*

G. Lombard Kelly, Chairman.....Augusta  
 Russell H. Oppenheimer.....Atlanta  
 Richard Torpin.....Augusta  
 Olin Cofer.....Atlanta

*Advisory—State Board of Health*

Wm. W. Anderson, Chairman.....Atlanta  
 D. S. Reese.....Carrollton  
 J. H. Baxter.....Ashburn  
 O. C. Pittman.....Commerce  
 W. G. Elliott.....Cuthbert  
 R. C. Franklin.....Swainsboro

*Sub-Committee*

*Advisory—State Board of Health*

*Social Security Act*

W. C. Goodpasture, Chairman.....Atlanta  
 O. R. Thompson.....Macon  
 J. W. Thurmond.....Augusta  
 John P. Turk.....Nelson  
 M. R. Smith.....Cordele

*Industrial Relations*

C. F. Holton, Chairman.....Savannah

R. L. Rhodes.....Augusta  
 T. P. Goodwyn.....Atlanta  
 W. A. Newman.....Macon  
 J. T. McCall.....Rome

*Tuberculosis*

C. H. Holmes, Chairman.....Atlanta  
 H. C. Schenck.....Atlanta  
 C. D. Whelchel.....Gainesville  
 Wm. C. Cook.....Columbus  
 H. C. Atkinson.....Macon  
 R. C. McGehee.....Augusta  
 R. V. Martin.....Savannah  
 E. F. Wahl.....Thomasville  
 J. A. Simpson.....Athens  
 W. H. Lewis.....Rome  
 R. C. Maddox.....Rome

*Scientific Exhibit*

Mark S. Dougherty, Jr., General Chairman...Atlanta  
 Roy R. Kracke, Co-Chairman.....Emory University  
 Fred A. Mettler, Co-Chairman.....Augusta  
 Lee Howard.....Savannah  
 Everett L. Bishop.....Atlanta  
 Jas. N. Brawner, Jr.....Atlanta  
 A. F. Saunders.....Valdosta  
 J. H. Mull.....Rome  
 W. Ed Storey.....Columbus  
 M. A. Fort.....Bainbridge  
 Roy A. Hill.....Thomasville  
 T. F. Sellers.....Atlanta

*Reference Committee No. 1*

B. H. Minchew, Chairman.....Waycross  
 C. W. Roberts.....Atlanta  
 Geo. A. Traylor.....Augusta

*Reference Committee No. 2*

Clarence L. Ayers, Chairman.....Toccoa  
 Marvin M. Head.....Zebulon  
 L. P. Holmes.....Augusta

*Reference Committee No. 3*

C. K. Sharp, Chairman.....Arlington  
 D. L. Wood.....Dalton  
 Olin H. Weaver.....Macon

*Study of Maternal Mortality and Infant Deaths*

H. F. Sharpley, Jr., Chairman.....Savannah

*First District*

A. J. Mooney.....Statesboro  
 H. G. Lee.....Millen

*Second District*

W. L. Wilkinson.....Bainbridge  
 W. W. Jarrell.....Thomasville

*Third District*

Herschel A. Smith.....Americus  
 F. B. Schley.....Columbus

*Fourth District*

H. J. Copeland.....Griffin  
 Emory R. Park.....LaGrange

*Fifth District*

E. D. Colvin.....Atlanta  
 Lee Bivings.....Atlanta

*Sixth District*

W. M. Cason.....Sandersville  
 O. C. Woods.....Milledgeville

*Seventh District*

R. C. Maddox.....Rome

Fred H. Simonton.....Chickamauga

*Eighth District*

T. H. Clark.....Douglas

C. M. Stephens.....Waycross

*Ninth District*

Bradley B. Davis.....Gainesville

Geo. C. Brooke.....Canton

*Tenth District*

Joseph Akerman .....Augusta

S. S. Smith.....Athens

*Ex officio*

T. F. Abercrombie, Director, State Department of  
Public Health, Atlanta.

*Fraternal Delegate to the  
Georgia Dental Association*

T. L. Byrd.....Atlanta

*Fraternal Delegate to the  
Georgia Pharmaceutical Association*

C. D. Vinson.....Atlanta

*Fraternal Delegates to Other State Meetings*

To Visit Alabama: Thomas Chason, Donalsonville;  
C. O. Williams, West Point.

To Visit Florida: Wm. Willis Anderson, Atlanta;  
Chas. R. Andrews, Canton; Arthur G. Fort, At-  
lanta; T. C. Davison, Atlanta.

To Visit North Carolina: Clarence L. Ayers, Toccoa;  
Linton Gerdine, Athens; J. A. Green, Clayton; O.  
N. Harden, Cornelia.

To Visit South Carolina: W. F. Reavis, Waycross;  
Wm. A. Mulherin, Augusta; H. J. Rosenberg, At-  
lanta.

To Visit Tennessee: Richard Binion, Milledgeville;  
D. L. Wood, Dalton; W. R. Richards, Calhoun.

*State Board of Health*

First District—Cleveland Thompson, Millen, Sept. 1,  
1939.

Second District—C. K. Sharp, Arlington, Sept. 1,  
1939.

Third District—Mr. R. C. Ellis, Americus, Sept. 1,  
1942.

Fourth District—J. A. Corry, Barnesville, Sept. 1,  
1943.

Fifth District—Mr. Robert F. Maddox, Atlanta, Sept.  
1, 1942.

Sixth District—A. R. Rozar, Macon, Sept. 1, 1938.

Seventh District—Mather M. McCord, Rome, Sept. 1,  
1938.

Eighth District—Henry W. Clements, Adel, Sept. 1,  
1938.

Ninth District—L. C. Allen, Hoschton, Sept. 1, 1939.

Tenth District—D. N. Thompson, Elberton, Sept. 1,  
1943.

*State of Georgia at Large  
Pharmaceutical Association*

M. D. Hodges, Marietta, Sept. 1, 1941.

W. T. Edwards, Augusta, Sept. 1, 1941.

*Georgia Dental Association*

J. G. Williams, D.D.S., Atlanta, Sept. 1, 1940.

Paul McGee, D.D.S., Waycross, Sept. 1, 1940.

DISTRICT SOCIETIES  
OFFICERS AND MEETING DATES

*First District*

President—R. C. Franklin, Swainsboro.

Secretary—Chas. Usher, Savannah.

Third Wednesdays—March and July.

*Second District*

President—J. C. Keaton, Albany.

Secretary—J. C. Brim, Pelham.

Second Fridays—April and October.

*Third District*

President—M. L. Malloy, Vienna.

Secretary—Chas. A. Greer, Oglethorpe.

Third Wednesday in June and Second Wednesday  
in November.

*Fourth District*

President—V. H. Bennett, Gay.

Secretary—M. M. Head, Zebulon.

Second Wednesdays—February and August.

*Fifth District*

President—Olin S. Cofer, Atlanta.

Secretary—D. Henry Poer, Atlanta.

No set dates.

*Sixth District*

President—O. H. Cheek, Dublin.

Secretary—W. W. Chrisman, Macon.

Last Wednesday in June and First Wednesday in  
December.

*Seventh District*

President—N. A. Funderburk, Trion.

Secretary—Jno. M. McGehee, Cedartown.

First Wednesday in April and last Wednesday in  
September.

*Eighth District*

President—W. F. Reavis, Waycross.

Secretary—G. T. Crozier, Valdosta.

Second Tuesdays in April and October.

*Ninth District*

President—R. M. Moore, Waleska.

Secretary—Pratt Cheek, Gainesville.

Third Tuesdays in March and September.

*Tenth District*

President—W. D. Gholston, Danielsville.

Secretary—Philip R. Stewart, Monroe.

Second Wednesdays in February and August.

DELEGATES TO THE 1939 SESSION\*

Counties	Names and Addresses
Appling.....	W. T. Kelley, Baxley
Baldwin.....	J. R. S. Mays, Milledgeville
Bartow.....	W. E. Wofford, Cartersville
Ben Hill .....	.....
Bibb.....	J. A. Fountain, Macon
	T. L. Ross, Macon
Blue Ridge.....	C. B. Crawford, Blue Ridge
Brooks.....	S. E. Sanchez, Barwick
Bulloch-Candler-Evans.....	B. A. Deal, Statesboro
Burke .....	.....
Butts .....	.....
Carroll.....	J. E. Powell, Villa Rica
Chatham.....	C. F. Holton, Savannah
	H. H. McGee, Savannah
Chattooga.....	C. E. Magoun, Trion

\*This list includes the names of all delegates reported to date.



Cherokee-Pickens.....C. J. Roper, Jasper  
 Clarke-Madison-Oconee..W. D. Gholston, Danielsville  
 Clayton-Fayette.....J. R. Wallis, Lovejoy  
 Cobb.....H. B. Terry, Acworth  
 Coffee.....T. H. Clark, Douglas  
 Colquitt.....C. C. Brannen, Moultrie  
 Coweta.....  
 Crisp.....M. R. Smith, Cordele  
 Decatur-Seminole.....Gordon Chason, Bainbridge  
 DeKalb.....  
 Dooley.....  
 Dougherty.....Alex Freeman, Albany  
 Douglas.....  
 Elbert.....J. E. Johnson, Elberton  
 Emanuel.....R. C. Franklin, Swainsboro  
 Floyd.....J. H. Mull, Rome  
 Forsyth.....  
 Franklin.....  
 Fulton.....Edgar H. Greene, Atlanta  
                                 C. C. Aven, Atlanta  
                                 B. Russell Burke, Atlanta  
                                 W. S. Dorough, Atlanta  
                                 D. Henry Poer, Atlanta  
                                 Chas. E. Rushin, Atlanta  
                                 John F. Denton, Atlanta  
                                 C. W. Strickler, Atlanta  
                                 H. C. Sauls, Atlanta  
 Glynn.....M. E. Winchester, Brunswick  
 Gordon.....  
 Grady.....J. V. Rogers, Cairo  
 Greene.....  
 Gwinnett.....  
 Habersham.....B. J. Roberts, Cornelia  
 Hall.....E. L. Ward, New Holland  
 Hancock.....C. S. Jernigan, Sparta  
 Haralson.....  
 Hart.....W. E. McCurry, Hartwell  
 Henry.....R. V. Brandon, McDonough  
 Houston-Peach.....J. W. Story, Perry  
 Jakson-Barrow.....A. A. Rogers, Commerce  
 Jasper.....  
 Jefferson.....S. T. R. Revell, Louisville  
 Jenkins.....J. J. Folk, Millen  
 Lamar.....  
 Laurens.....O. H. Cheek, Dublin  
 Macon.....  
 McDuffie.....B. F. Riley, Thomson  
 Meriwether.....  
 Mitchell.....  
 Monroe.....  
 Montgomery.....H. C. Sharpe, Alston  
 Morgan.....  
 Muscogee.....  
 Newton.....  
 Ocmulgee-Bleckley-Dodge-  
   Pulaski.....W. A. Coleman, Eastman  
 Polk.....P. O. Chaudron, Cedartown  
 Rabun.....  
 Randolph.....Loren Gary, Jr., Shellman  
 Richmond.....W. J. Cranston, Augusta  
                                 L. P. Holmes, Augusta  
 Rockdale.....H. E. Griggs, Conyers  
 Rockdale.....

Screven.....  
 South Georgia: (Berrien-Clinch-Cook-Echols-  
   Lanier-Lowndes).....G. T. Crozier, Valdosta  
 Spalding.....  
 Stephens.....  
 Stewart-Webster.....  
 Sumter.....H. A. Smith, Americus  
 Talbot.....G. L. Carter, Talbotton  
 Tattnall.....L. V. Strickland, Cobbtown  
 Taylor.....S. H. Bryan, Reynolds  
 Te'fair.....J. D. Stillwell, McRae  
 Terrell.....S. P. Kenyon, Dawson  
 Thomas.....Roy A. Hill, Thomasville  
 Tift.....C. A. Fleming, Tifton  
 Toombs.....  
 Tri: (Calhoun-Early-Miller)....Holt Darden, Blakely  
 Tri: (Liberty-Long-  
   McIntosh).....O. D. Middleton, Ludowici  
 Troup.....E. C. Herman, LaGrange  
 Turner.....  
 Upson.....B. L. Bridges, Thomaston  
 Walker-Catoosa-Dade.....B. C. Hale, Rossville  
 Ware.....W. F. Reavis, Waycross  
 Walton.....S. A. Boland, Loganville  
 Warren.....  
 Washington.....R. L. Taylor, Davisboro  
 Wayne.....  
 Whitfield.....D. L. Wood, Dalton  
 Wilcox.....  
 Wilkes.....  
 Worth.....

# ANNOUNCEMENTS

Meetings will be held in the Ball Room, Biltmore Hotel.

Be sure to go to the Registration Desk, present your 1939 membership card and procure a badge immediately upon your arrival.

Discussion of papers is open to all members and guests of the Association: it is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and the stenographer.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

# IMPORTANT NOTICE!

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure delegates' badges.

Members may not take part in the proceedings until they have registered and procured official badges.

# PUBLIC MEETINGS

*Central Standard Time  
 Ball Room*

*Biltmore Hotel*  
WEDNESDAY, APRIL 26, 9:00 A. M.  
BALL ROOM  
*Opening Meeting*

WEDNESDAY, APRIL 26, 8:00 P. M.  
Presentation of the President's Key to Grady N Coker, Canton, by Eugene E. Murphey, Augusta.  
*Some Phases of Medical Economics*  
H. H. Shoulders, Nashville, Tenn.  
Assistant Professor of Clinical Surgery of Vanderbilt University School of Medicine; Secretary of the Tennessee State Medical Association, and Speaker of the House of Delegates of the American Medical Association. Invited guest. Introduction by C. W. Roberts, Atlanta.

*The Social and Economic Value of Health*  
Hon. Robert F. Maddox, Atlanta  
Chairman of the State Board of Health  
Introduction by C. W. Strickler, Atlanta.

THURSDAY, APRIL 27, 12:00 NOON  
*Ball Room, Biltmore Hotel*  
PRESIDENT'S ADDRESS  
*Modern Trends of Medical Practice*  
Grady N. Coker  
Canton

The President's Address will be at an open session to which the public and visitors are invited.

*Memorial Exercise*  
Stewart R. Roberts, Atlanta  
Chairman, Committee on Necrology

#### ENTERTAINMENTS APRIL 26, 1:00 P. M.

Annual Luncheon of the Georgia Radiological Society at Biltmore Hotel.

WEDNESDAY, APRIL 26, 6:30 P. M.

Annual Dinner of the alumni of Emory University School of Medicine at the Biltmore Hotel.

Annual Dinner of the alumni of the University of Georgia School of Medicine at the Biltmore Hotel.

THURSDAY, APRIL 27, 1:00 P. M.

*Biltmore Hotel*

Annual luncheon and business meeting of the Georgia Pediatric Society.

THURSDAY, APRIL 27, 7:30 P. M.

*Biltmore Hotel*

Annual banquet . . . . . 7:30 to 10:00  
Toastmaster . . . . . Allen H. Bunce, Atlanta  
Dance 10:00 to 1:00

#### INVITATION

April 25, 26, 27, 2:00 to 4:00 P. M.—Each Day  
The Good Samaritan Clinic, 17 Alexander Street, N. W., Atlanta, extends an invitation to members who attend the annual session to visit the Clinic from 2:00 to 4:00 on April 25, 26, 27. An open house will be held and a variety of interesting endocrine cases may be seen.

#### MEETING OF THE COUNCIL

*Ball Room, Biltmore Hotel*

The first meeting of the Council will be held in

the Ball Room, Tuesday, April 25, at 6:30 P. M. Each Councilor will render a written report of conditions in each county of his district. Other meetings of the Council will be held on the call of the chairman.

#### MEETING OF THE HOUSE OF DELEGATES

*Ball Room, Biltmore Hotel*

Tuesday, April 25, 2:00 P. M.

*Central Standard Time*

First meeting of the House of Delegates.

1. Call to order by the President.
2. Roll call.
3. Appointment of Reference Committees.
4. Reports of officers:
  - President.
  - President-Elect.
  - Vice-Presidents.
  - Parliamentarian.
  - Secretary-Treasurer: Financial report.
  - Reports of Delegates to the A.M.A.
5. Reports of committees:
  - Scientific Work.
  - Public Policy and Legislation.
  - Arrangements.
  - Medical Defense.
  - Hospitals.
  - Necrology.
  - Cancer Commission.
  - History.
  - Abner Wellborn Calhoun Lectureship.
  - Awards.
  - Advisory—State Board of Health.
  - Advisory—Woman's Auxiliary.
  - Medical Economics.
  - Post-Graduate Study.
  - Orthopedics—Advisory, State Department of Public Welfare.
  - Ophthalmology—Advisory, State Department of Public Welfare.
  - Syphilis.
  - Industrial Relations.
  - Tuberculosis.
  - Scientific Exhibit.
  - Maternal Mortality and Infant Deaths.
  - Special Committees.
6. Reports of Fraternal Delegates.
7. Unfinished Business.
8. New Business.

TUESDAY, APRIL 25, 8:00 P. M.

*Central Standard Time*

*Ball Room, Biltmore Hotel*

Second Meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Study of Maternal Mortality—Chairman of Committee.
4. Reports of committees continued.
5. Unfinished business.
6. New business.

FRIDAY, APRIL 29, 8:00 A. M.

Third Meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of committees.
4. Unfinished business.
5. New business.

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#### OFFICIAL REPORTER

Miss Winifred H. McLean.....Gastonia, N. C.

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#### SCIENTIFIC PROGRAM

The papers for each meeting must be read as scheduled on the program.

WEDNESDAY, APRIL 26, 9:00 A. M.

*Central Standard Time*

*Biltmore Hotel*

*Atlanta*

Call to order by the President, Grady N. Coker, Canton.

#### *Invocation*

Edward G. Mackay.....Atlanta

Pastor, First Methodist Church

*Address of Welcome*

Edgar H. Greene.....Atlanta

President, Fulton County Medical Society

*Response to Address of Welcome*

John W. Simmons.....Brunswick

#### SCIENTIFIC PROGRAM

1. Prophylactics and the Common Cold.  
Hartwell Joiner, Gainesville.  
To lead the discussion:  
W. M. Cason, Sandersville.  
Geo. B. Smith, Rome.
2. One Thousand Transurethral Operations: Results Compared with Open Operations.  
Edgar G. Ballenger, Atlanta.  
Harold P. McDonald, Atlanta.  
R. C. Coleman, Jr., Atlanta.  
To lead the discussion:  
Rudolph Bell, Thomasville.  
W. F. Reavis, Waycross.
3. The Importance of the Differential Diagnosis of Heart Disease.  
L. Minor Blackford, Atlanta.  
To lead the discussion:  
H. C. Atkinson, Macon.  
Eugene E. Murphey, Augusta.
4. Carotid-jugular Arteriovenous Aneurysm.  
Julian K. Quattlebaum, Savannah.  
To lead the discussion:  
Daniel C. Elkin, Atlanta.  
Olin H. Weaver, Macon.
5. Chronic Gastritis.  
Crawford F. Barnett, Atlanta.  
To lead the discussion:  
J. D. Gray, Augusta.  
Jno. B. Fitts, Atlanta.

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WEDNESDAY, APRIL 26, 12:00 NOON

ABNER WELLBORN CALHOUN LECTURE

*Suggestions for the Use of Anesthetics and*

*Analgesics in General Medical Practice*

John S. Lundy, Rochester, Minn.

Chief of Section on Anesthesia, The Mayo Clinic;

Professor of Anesthesia, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota.

Introduction by Jas. E. Paullin, Atlanta

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WEDNESDAY, APRIL 26, 2:00 P. M.

*Central Standard Time*

*Biltmore Hotel*

1. Human Problems of the Doctor.  
Jas. M. Barnett, Albany.  
To lead the discussion:  
S. T. R. Revell, Louisville.  
O. O. Fanning, Atlanta.
  2. Pneumonolysis as an Adjunct of the Treatment of Pulmonary Tuberculosis.  
Carl C. Garver, Atlanta.  
To lead the discussion:  
C. D. Whelchel, Gainesville.  
C. C. Aven, Atlanta.  
*Symposium on Industrial Surgery*
  3. (a) Some Problems of Industrial Practice with Special Reference to Treatment.  
Robert L. Rhodes, Augusta.  
(b) General Fracture Treatment: Most Common Industrial Types.  
Charles H. Watt, Thomasville.  
(c) Ethical and Legal Aspects of Industrial Practice.  
John W. Simmons, Brunswick.  
(d) Operative Treatment of Inguinal Hernia.  
Lawrence S. Fallis, Henry Ford Hospital, Detroit, Mich.
- Introduction by C. F. Holton, Savannah
- To lead the discussion:  
C. W. Roberts, Atlanta.  
Frank K. Boland, Atlanta.  
Jno. D. Blackburn, Thomaston.  
Geo. A. Taylor, Augusta.  
Chas. E. Rushin, Atlanta.

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WEDNESDAY, APRIL 26, 8:00 P. M.

*Central Standard Time*

*Biltmore Hotel*

Presentation of the President's Key to the President, Grady N. Coker, Canton, by Eugene E. Murphey, Augusta.

*Some Phases of Medical Economics*

H. H. Shoulders, Nashville, Tenn.

Assistant Professor of Clinical Surgery of Vanderbilt University School of Medicine; Secretary of Tennessee State Medical Association, and Speaker of the House of Delegates of the American Medical Association.

Introduction by C. W. Roberts, Atlanta.

*The Social and Economic Value of Health*

Hon. Robert F. Maddox, Atlanta

Chairman, State Board of Health

Introduction by C. W. Strickler, Atlanta

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THURSDAY, APRIL 27, 9:00 A. M.

*Central Standard Time*

*Biltmore Hotel*

1. External Ear Diseases with Particular Reference to Fungoid Type—Preliminary Report.



B. H. Minchew, Waycross.

B. E. Collins, Waycross.

M. M. Harris, Waycross.

To lead the discussion:

Arthur G. Fort, Atlanta.

G. H. Lang, Savannah.

2. Treatment of Sterility.

Chas. B. Upshaw, Atlanta.

To lead the discussion:

Edgar H. Greene, Atlanta.

Richard Torpin, Augusta.

3. Difficulties and Mistakes in the Diagnosis of Chronic Appendicitis.

A. J. Mooney, Statesboro.

To lead the discussion:

Kenneth McCullough, Waycross.

J. C. Patterson, Cuthbert.

4. Advances in the Recognition and Treatment of Nutritional Disturbances.

V. P. Sydenstricker, Augusta.

To lead the discussion:

Geo. L. Echols, Milledgeville.

Glenville Giddings, Atlanta.

5. The Effect of Nervous Influences on Nutrition.

Ernest F. Wahl, Thomasville.

To lead the discussion:

J. A. Redfearn, Albany.

Inman Smith, Rome.

Harold Bowcock, Atlanta.

6. Psychiatric Problems in a General Hospital.

Hervey Cleckley, Augusta.

To lead the discussion:

Newdigate M. Owensby, Atlanta.

J. E. Walker, Columbus.

THURSDAY, APRIL 27, 12:00 NOON

*Central Standard Time*

*Biltmore Hotel*

PRESIDENT'S ADDRESS

*Modern Trends of Medical Practice*

Grady N. Coker

Canton

*Memorial Exercises*

Stewart R. Roberts, Atlanta

Chairman, Committee on Necrology

THURSDAY, APRIL 27, 2:00 P. M.

*Central Standard Time*

*Biltmore Hotel*

1. The Use of Sulfanilamide in Routine Pediatric Practice.

Joseph Yampolsky, Atlanta.

To lead the discussion:

A. M. Johnson, Valdosta.

Jno. A. Simpson, Athens.

2. Standards in Growth and Development in Infancy and Childhood.

Mercer Blanchard, Columbus.

To lead the discussion:

Ruskin King, Savannah.

Helen Bellhouse, Thomasville.

*Cancer Symposium*

3. (a) State-Aid Cancer Clinics: Methods and Rec-

ords.

J. L. Campbell, Atlanta.

(b) State-Aid in Cancer Control in Georgia.

C. C. Harrold, Macon.

(c) Treatment of Skin Cancer in Ambulatory Patients—Review of 200 Cases.

Howard Hailey, Atlanta.

(d) Choice of Treatment of Cancer of the Breast.

Enoch Callaway, LaGrange.

(e) Cancer of the Cervix—Review of 150 Cases Treated at the John D. Archbold Memorial Hospital.

A. D. Little, Thomasville.

J. J. Collins, Thomasville.

(f) Malignancies Related to Venereal Diseases.

Edgar R. Pund, Augusta.

Edward S. Cardwell, Augusta.

(g) Value of Biopsy in the Diagnosis of Cancer.

J. E. Scarborough, Emory University.

To lead the discussion:

(a & b) Ralph Mosteller, Atlanta.

(c) G. T. Bernard, Augusta.

(d) Wm. H. Myers, Savannah.

(e) O. D. Hall, Atlanta.

(f) Willis P. Jordan, Columbus.

(g) Everett L. Bishop, Atlanta.

FRIDAY, APRIL 28, 9:00 A. M.

*Central Standard Time*

*Biltmore Hotel*

1. A Report of a Few Cases of Interest from the Diagnostic Standpoint.

Paul S. Kemp, Macon.

To lead the discussion:

Jas. E. Paullin, Atlanta.

Jno. W. Daniel, Jr., Savannah.

2. Simple Proctologic Procedures.

Chas. E. Hall, Jr., Atlanta.

To lead the discussion:

Stewart D. Brown, Royston.

H. M. McKemie, Albany.

3. The Use of Anesthesia in Rectal Surgery.

A. M. Phillips, Macon.

To lead the discussion:

Geo. F. Eubanks, Atlanta.

J. H. McDuffie, Columbus.

4. Principles Involved in the Treatment of Congenital Clubfeet.

J. H. Kite, Decatur.

To lead the discussion:

P. B. Wright, Augusta.

Randolph Smith, Atlanta.

5. The Problem of Medical Care as Seen by a County Health Officer.

M. E. Groover, Quitman.

To lead the discussion:

M. E. Winchester, Brunswick.

M. A. Fort, Bainbridge.

ALTERNATES

1. Allergic Enterocolitis.

M. A. Ehrlich, Bainbridge.

2. The Present Status of Treatment of Infections of

the Nasal Accessory Sinuses.

S. J. Lewis, Augusta.

3. A New Method of Treatment in Metropathia Hemorrhagica.

Robert B. Greenblatt, Augusta.

4. Autogenous Vaccines as an Aid in Treating Certain Diseases: Report of an Improved Method of the Manufacture and Administration of Them.

Jack C. Norris, Atlanta.

5. Sub-acute Respiratory Infections in Children.

Wm. Willis Anderson, Atlanta.

FRIDAY, APRIL 28, 12:00 NOON

*Central Standard Time*

*Biltmore Hotel*

#### ELECTION OF OFFICERS

President-Elect.

First Vice-President.

Second Vice-President.

One delegate to the A.M.A.

One alternate delegate to the A.M.A.

\*Councilors for the First, Second, Third, and Fourth Districts.

\*Two nominations from each of the First, Second and Ninth Districts for the appointment of one from each district to the State Board of Health.  
Selection of Meeting place for 1940.

\* Nominated by their respective district societies.

#### CONSTITUTION AND BY-LAWS

Chapter II. Section 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Chapter VIII. Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with this Constitution and By-Laws.

Chapter VIII. Section 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done, it shall not be published.

No miscellaneous or business matters will be discussed before the scientific meetings, but will be referred to the House of Delegates.

#### *Resolution Adopted 1921*

Resolved: That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

#### *Notice to Members Participating in the Scientific Exhibit*

Three certificates of merit, to be known as first, second and third prizes, will be given by the Committee on Scientific Work to the three outstanding exhibits at this session of the Medical Association of

Georgia. These will be judged on the first day of the session.

We are instructed by the President to announce to all essayists that the session of the Scientific Program of the Association will begin on time, and that the above regulations of the By-Laws in reference to the program will be strictly enforced.

#### *Committee on Scientific Work*

Chas. H. Richardson, Macon, Chairman.

John E. Walker, Columbus.

Glenville Giddings, Atlanta.

Edgar D. Shanks, Secretary-Treasurer, Atlanta.

#### IN MEMORIAM\*

Asher, William Thomas, Atlanta, February 7, 1939, aged 68.

Ballard, Ira Willis, Forest Park, August 5, 1938, aged 54.

Baskin, Charles L., Bremen, January 13, 1939, aged 69.

Bassett, Victor Hugo, Savannah, November 3, 1938, aged 67.

Bradley, Richard S., Dalton, October 19, 1938, aged 81.

Branham, Harris Miller, Brunswick, October 28, 1938, aged 76.

Brown, Joseph R., Lavonia, August 19, 1938, aged 68.

Carnog, William Wallace, Lavonia, August 25, 1938, aged 73.

Chambers, J. A. S., Inman, December 6, 1938, aged 79.

Daly, Richard Randolph, Atlanta, November 24, 1938, aged 72.

Egbert, Edgar Homer, St. Simons Island, February 27, 1939, aged 58.

Fussell, Thomas D., Rhine, April 14, 1938, aged 57.

Gibson, Benjamin Harrison, Allenhurst, August 3, 1938, aged 52.

Hall, Warren J., Oakfield, September 16, 1938, aged 84.

Johnson, Gustaf Hugo, Savannah, December 28, 1938, aged 67.

Lamb, Robert Bayard, Demorest, June 5, 1938, aged 58.

Lattimore, Ralston, Savannah, April 20, 1938, aged 67.

Lineback, Paul Eugene, Emory University, February 28, 1938, aged 59.

McAllister, J. M. C., Rohelle, January 25, 1939, aged 59.

Middlebrooks, James D., Powder Springs, December 2, 1938, aged 77.

Miller, Thomas Bright, Richland, June 23, 1938, aged 85.

Mizell, George Campbell, Atlanta, February 4, 1939, aged 62.

Moorman, Ivy W., Douglas, August 11, 1938, aged 70.

Morrison, Arthur Alston, Savannah, October 17, 1938, aged 38.

Oliver, Jess Moody, Hazelhurst, October 18, 1938, aged 51.

Register, David Wells, Atlanta, December 22, 1938, aged 52.

- Rhodes, John A., Crawfordsville, April 9, 1938, aged 75.
- Roberts, James William, Atlanta, May 4, 1938, aged 52.
- Rose, Walter Henry, Wrightsville, June 28, 1938, aged 48.
- Simmons, Benjamin Kelley, Blakely, October 7, 1938, aged 68.
- Simpson, Robert Alexander, Washington, September 24, 1938, aged 79.
- Sims, Walter C., Richland, November 20, 1938, aged 66.
- Tye, Robert Lee, McDonough, January 8, 1939, aged 74.
- Weathers, Andrew Fletcher, Shellman, October 14, 1938, aged 68.
- Webb, William A., Lithonia, July 1, 1938, aged 62.
- Wilcox, Charles Hugh, Fitzgerald, May 18, 1938, aged 63.
- Withers, Samuel M., Moultrie, September 5, 1938, aged 62.

\* This is the list of members who have died since our last annual session as it appears on our records. Please notify the Secretary-Treasurer of any errors or omissions.

#### COMMERCIAL EXHIBIT

1. Surgical Selling Company, 139 Forrest Avenue, N. E., Atlanta.
2. Horlick's Malted Milk Corporation, Racine, Wis.
- 3-3½. General Electric X-Ray Corporation, 2012 Jackson Boulevard, Chicago; 205 Spring Street, N. W., Atlanta.
4. American Surgical Supply Company, 23 Houston Street, N. E., Atlanta.
5. Holland Rantos Company, 37-41 East 18th Street, New York City.
6. J. A. Majors Company, 1301 Tulane Avenue, New Orleans, La.
7. The Borden Company, 350 Madison Avenue, New York City.
8. Mead Johnson & Company, Evansville, Ind.
9. Estes Surgical Supply Company, 56 Auburn Avenue, N. E., Atlanta.
10. Luzier's, Inc., 3210 Gillham Plaza, Kansas City, Mo.; W. T. Nicholson, 396 Lake Shore Drive, N. E., Atlanta, Ga.
11. Southeastern Optical Company, Rhodes Bldg., P. O. Box 1747, Atlanta.
- 12-12½. G. D. Searle & Company, 4737-4743 Ravenswood Avenue, Chicago.
13. Max Woche & Sons, 31 West Sixth Street, Cincinnati, O.; Mr. Ben Perryman, P. O. Box 242, Atlanta.
14. Westinghouse X-Ray Company, 565 West Peachtree Street, N. E., Atlanta.
15. Denver Chemical Company, 163 Varick Street, New York City.
16. Petrolagar Laboratories, 3134 McCormick Boulevard, Chicago.
17. E. R. Squibb & Sons, 745 Fifth Avenue, New York City.
18. Wm. S. Merrell Company, Cincinnati, O.

19. M. & R. Dietetic Laboratories, Columbus, O.
20. Lederle Laboratories, 30 Rockefeller Plaza, New York City; 139 Forrest Avenue, N. E., Atlanta.
21. Wachtel's Physician Supply Company, 408-410 Bull St., P. O. Box 623, Savannah.
22. Philip Morris & Company, 119 Fifth Avenue, New York City.
23. Everhart Surgical Supply Company, 493 Peachtree Street, N. E., Atlanta.
24. S. & H. X-Ray Company, 429 Peachtree Street, N. E., Atlanta.
25. Smith, Kline & French Laboratories, 105 North Fifth Avenue, Philadelphia, Pa.
26. The C. B. Fleet Company, Lynchburg, Va.; W. E. Avery, 136 Ponce de Leon Court, Decatur, Ga.
27. John Wyeth & Brother, 1118 Washington Avenue, Philadelphia, Pa.
29. The Harrower Laboratory, Glendale, Calif.
32. H. J. Heinz Company, Pittsburgh, Pa.
33. J. B. Lippincott Company, East Washington Square, Philadelphia, Pa.
34. Jetter & Scheerer Products, Inc., 251-255 Fourth Avenue, N. Y. City.
- 35-36. Pet Milk Sales Corporation, Arcade Building, St. Louis, Mo.
- Eli Lilly and Company, Indianapolis, Ind.
- Frederick Stearns & Company, Detroit, Mich.

#### TRAUMATIC HEMOTHORAX TREATED BY ARTIFICIAL PNEUMOTHORAX AND AUTOTRANSFUSION

(Continued from page 109)

The wound healed promptly and the patient was discharged on the 11th hospital day. He returned several weeks later stating that he felt perfectly well and fluoroscopic examination showed no abnormality of the thorax.

#### Comment

The use of autotransfusion in cases of hemothorax has certain limitations. In cases of spontaneous hemopneumothorax arising from pulmonary tuberculosis or pulmonary suppuration the danger of infection obviates its use. Reactions seem more likely to occur if the hemorrhage is more than 24 hours old.

#### Summary

According to the American literature autotransfusion has been used with good results in 11 cases of traumatic hemothorax.

Artificial pneumothorax is a well tested and effective method of treatment in cases of wounds of the lung.

A case of traumatic hemothorax is presented in which 1,450 cc. of blood were aspirated and reinfused into a young man apparently moribund. Improvement was prompt and convalescence uneventful.

Bibliography omitted for lack of space but will be included in reprints.



**WOMAN'S AUXILIARY : OFFICERS 1938-1939**

President—Mrs. Warren A. Coleman, Eastman.  
 President-Elect—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

First Vice-President—Mrs. H. G. Banister, Ila.  
 Second Vice-President—Mrs. Jas. L. Nevil, Metter.

Third Vice-President—Mrs. D. T. Rankin, Alto.

Parliamentarian—Mrs. Ralph H. Chaney, Forest Hills, Augusta.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. J. Cox Wall, Eastman.

Historian—Mrs. C. C. Brannen, Moultrie.

Treasurer—Mrs. Robert Woodbury, Augusta.



MRS. WARREN A. COLEMAN, Eastman  
 President, 1938-1939

**INVITATION***To the Members of the Auxiliary:*

The Auxiliary of Fulton County Medical Society extends to each member of the State Auxiliary a hearty and cordial invitation to Atlanta in April.

This invitation comes from each member and conveys to you a sincere wish that you will come to the meeting in Atlanta, April 25-28. We want you to come the first day and stay until the last. We are happy to be hostess this year and our plans are made to make it one of the best and most successful meetings we have ever had.

Our fifteenth annual meeting is so important because it gives us first an opportunity to

know each other better, to see what we are doing and to discuss what we need to do. It shows the physicians of our State that we are cooperating with them in every way possible. Our help is probably needed more than ever before. We hope each doctor's wife will come. We will give you a hearty welcome and do our utmost to see that you enjoy the meeting.

Most of you know Atlanta and its beauty at this season of the year. In April there will be many beautiful gardens for you to see, there will be our excellent shops for you to enjoy and other entertainment which we have planned to make your visit with us one of genuine pleasure.

With anticipation of the meeting and your attendance, I extend to you on behalf of the Woman's Auxiliary a sincere invitation.

MRS. BERNARD L. SHACKLEFORD,  
*President, Woman's Auxiliary to the  
 Fulton County Medical Society.*

**PROGRAM**

FIFTEENTH ANNUAL CONVENTION  
 WOMAN'S AUXILIARY TO THE  
 MEDICAL ASSOCIATION OF GEORGIA

BILTMORE HOTEL, ATLANTA

April 25, 26, 27, 28, 1939.

**OFFICERS AND COMMITTEES***Executive Board*

President—Mrs. Warren A. Coleman, Eastman.

President-Elect—Mrs. Eustace A. Allen, Atlanta.

First Vice-President—Mrs. H. G. Banister, Ila.

Second Vice-President—Mrs. J. L. Nevil, Metter.

Third Vice-President—Mrs. Thos. J. Ferrell, Waycross.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. J. Cox Wall, Eastman.

Treasurer—Mrs. R. A. Woodbury, Augusta.

Historian—Mrs. Clem C. Brannen, Moultrie.

Parliamentarian—Mrs. Ralph H. Chaney, Augusta.

Past Presidents of State Auxiliary.

Presidents of County Auxiliaries.

*Chairmen of Standing Committees*

Organization—Mrs. Eustace A. Allen, Atlanta.  
 Health Education—Mrs. H. G. Banister, Ila.  
 Hygeia—Mrs. J. L. Nevil, Metter.  
 Scrap Book—Mrs. Thos. J. Ferrell, Waycross.  
 Student Loan Fund—Mrs. Robert Pendergrass, Americus.  
 Health Film—Mrs. S. Ross Brown, Atlanta.  
 Public Relations—Mrs. Benjamin H. Minchew, Waycross.  
 Doctor's Day—Mrs. W. B. Schaefer, Toccoa.  
 Legislation—Mrs. Wm. R. Dancy, Savannah.  
 Press and Publicity—Mrs. J. Harry Rogers, Atlanta.  
 Research in the Romance of Medicine—Mrs. J. Bonar White, Atlanta.  
 Jane Todd Crawford Memorial—Mrs. John Persall, McRae.  
 Revisions—Mrs. James N. Brawner, Atlanta.  
 "Mrs. Jas. N. Brawner Trophy"—Mrs. Ralph H. Chaney, Augusta.

*District Managers*

First District—Mrs. A. J. Mooney, Statesboro.  
 Second District—Mrs. H. Turner Edmondson, Moultrie.  
 Third District—Mrs. J. Cox Wall, Eastman.  
 Fifth District—Mrs. George Williams, Atlanta.  
 Sixth District—Mrs. W. W. Chrisman, Macon.  
 Eighth District—Mrs. Louis Smith, Lakeland.  
 Ninth District—Mrs. Bruce Schaefer, Toccoa.  
 Tenth District—Mrs. Stewart Brown, Royston.

*Conventions and Presidents*

1924—Augusta—(Organization), Mrs. C. W. Roberts, Temporary Chairman.  
 1925—Atlanta—Mrs. James N. Brawner, Atlanta.  
 1926—Albany—Mrs. Wm. H. Myers, Savannah.  
 1927—Athens—Mrs. C. W. Roberts, Atlanta.  
 1928—Savannah—Mrs. Paul Holliday, Athens.  
 (Mrs. J. C. Moore, Gaffney, S. C.)  
 1929—Macon—Mrs. C. C. Hinton, Macon.  
 1930—Augusta—Mrs. Marion T. Benson, Atlanta.  
 1931—Atlanta—Mrs. C. C. Harrold, Macon.  
 1932—Savannah—Mrs. Ralston Lattimore, Savannah.  
 1933—Macon—Mrs. S. T. R. Revell, Louisville.  
 1934—Augusta—Mrs. J. Bonar White, Atlanta.  
 1935—Atlanta—Mrs. J. E. Penland, Waycross.  
 1936—Savannah—Mrs. Ernest R. Harris, Winder.  
 1937—Macon—Mrs. Wm. R. Dancy, Savannah.  
 1938—Augusta—Mrs. Ralph H. Chaney, Augusta.

## COMMITTEES

*Arrangements*

Mrs. B. L. Shackleford, Atlanta, General Chairman.  
 Mrs. Jas. N. Brawner, Atlanta, Co-Chairman.  
 Mrs. W. A. Selman, Atlanta.

*Advisory*

Mrs. J. Bonar White, Atlanta.  
 Mrs. Eustace A. Allen, Atlanta.

*Credentials and Registration*

Mrs. F. M. Barfield, Atlanta, Chairman.  
 Mrs. Dan Y. Sage, Atlanta, Co-Chairman.  
 Mrs. C. W. Roberts, Atlanta.  
 Mrs. Gaston Gay, Atlanta.  
 Mrs. T. I. Willingham, Atlanta.  
 Mrs. Marion Benson, Atlanta.

Mrs. A. F. Brawner, Atlanta.  
 Mrs. Geo. Niles, Atlanta.  
 Mrs. Calhoun McDougall, Atlanta.  
 Mrs. Edgar Shanks, Atlanta.  
 Mrs. T. P. Goodwyn, Atlanta.  
 Mrs. Joseph Yampolsky, Atlanta.  
 Mrs. T. C. Davison, Atlanta.  
 Mrs. Wm. Warren, Jr., Atlanta.  
 Mrs. Wilbur Blackman, Atlanta.  
 Mrs. J. J. Clark, Atlanta.

*Entertainment*

Mrs. Wm. A. Smith, Atlanta, Chairman.  
 Mrs. Jack Norris, Atlanta.  
 Mrs. Stacy Howell, Atlanta.  
 Mrs. H. P. McDonald, Atlanta.  
 Mrs. W. C. Waters, Atlanta.  
 Mrs. J. E. Scarborough, Atlanta.  
 Mrs. A. O. Linch, Atlanta.  
 Mrs. C. C. Aven, Atlanta.  
 Mrs. Ed N. Schillinger, Atlanta.

*Informal Bridge*

Mrs. J. E. Scarborough, Atlanta, Chairman.  
 Mrs. Lee Bivings, Atlanta.  
 Mrs. Anthony Martin, Atlanta.  
 Mrs. Mark Pentecost, Atlanta.  
 Mrs. Earl Floyd, Atlanta.  
 Mrs. T. L. Byrd, Atlanta.  
 Mrs. Exum Walker, Atlanta.  
 Mrs. J. L. Campbell, Atlanta.  
 Mrs. C. B. Upshaw, Atlanta.

*Luncheon*

Mrs. Geo. W. Fuller, Atlanta.  
 Mrs. Leland Baggett, Atlanta.

*Decorations*

Mrs. J. C. Blalock, Atlanta, Chairman.  
 Mrs. C. M. West, Atlanta.  
 Mrs. Walter Jernigan, Atlanta.  
 Mrs. S. D. Gausemel, Atlanta.  
 Mrs. Chas. Lawrence, Atlanta.  
 Mrs. J. G. McDaniel, Atlanta.  
 Mrs. Geo. Murray, Atlanta.  
 Mrs. Linton Smith, Atlanta.  
 Mrs. Hugh Wood, Atlanta.  
 Mrs. T. F. Davenport, Atlanta.  
 Mrs. Martin Myers, Atlanta.

*Courtesy Committee*

Mrs. M. C. Pruitt, Atlanta, Chairman.  
 Mrs. Clinton Reed, Atlanta.  
 Mrs. L. G. Baggett, Atlanta.  
 Mrs. W. W. Anderson, Atlanta.  
 Mrs. Geo. W. Fuller, Atlanta.  
 Mrs. C. A. Rhodes, Atlanta.  
 Mrs. T. F. Davenport, Atlanta.  
 Mrs. Taylor Burgess, Atlanta.  
 Mrs. J. H. Crawford, Atlanta.  
 Mrs. Chas. Boynton, Atlanta.  
 Mrs. Jas. L. Jennings, Atlanta.  
 Mrs. Earl Quillian, Atlanta.

*Health Films*

Mrs. Ross Brown, Atlanta.  
 Mrs. John Turner, Atlanta.  
 Mrs. J. P. Hanner, Atlanta.

*Time Keeper*

Mrs. Stephen Brown, Atlanta, Chairman.  
 Mrs. Eugene Daniel, Atlanta.  
 Mrs. Geo. Murray, Atlanta.

*Garden Tour*

Mrs. R. E. Newberry, Atlanta, Chairman.

*Pages*

Mrs. Ed Greene, Atlanta, Chairman.  
 Mrs. Crawford Barnett, Atlanta, Co-Chairman.  
 Mrs. Chas. H. Daniel, Atlanta.  
 Mrs. Bagley Benson, Atlanta.  
 Mrs. Sam Perry, Atlanta.  
 Mrs. E. A. Bancker, Atlanta.  
 Mrs. A. B. Anderson, Atlanta.  
 Mrs. W. E. Upchurch, Atlanta.  
 Mrs. J. E. Scarborough, Atlanta.  
 Mrs. Walter Jernigan, Atlanta.  
 Miss Charlotte Sage, Atlanta.  
 Mrs. Cyrus Strickler, Jr., Atlanta.  
 Mrs. Champ Holmes, Atlanta.  
 Mrs. Phillip Nippert, Atlanta.

*Program*

Mrs. Mason Lowance, Atlanta, Chairman.

*Exhibit Chairman*

Mrs. Herbert Alden, Atlanta, Chairman.  
 Mrs. Calvin Stewart, Atlanta, Co-Chairman.  
 Mrs. Harry Lange, Atlanta.  
 Mrs. J. W. Landham, Atlanta.

*Hostess Committee*

Mrs. Hulett Askew, Atlanta, Chairman.	
Mrs. O. H. Matthews, Atlanta, Co-Chairman.	
Mrs. Olin S. Cofer.	Mrs. E. Y. Walker.
Mrs. Geo. Williams.	Mrs. Virgil Cooke.
Mrs. Elbert Agnor.	Mrs. Ed Fincher.
Mrs. B. E. Horton.	Mrs. Conway Hunter.
Mrs. O. D. Hall.	Mrs. Lamont Henry.
Mrs. L. Sage Hardin.	Mrs. Bomar Olds.
Mrs. Wm. Mitchell.	Mrs. Roger Dickson.
Mrs. Cosby Swanson.	Mrs. Allen H. Bunce.
Mrs. W. L. Funkhouser.	Mrs. John Denton.
Mrs. Henry W. Minor.	Mrs. N. M. Owensby.
Mrs. Pope Huguley.	Mrs. Clifton Kemper.
Mrs. Chas. G. Boland.	Mrs. Ricardo Mestre.
Mrs. J. C. Burch.	Mrs. Chas. Dowman.
Mrs. W. R. Crowe.	Mrs. Dixon Fowler.
Mrs. W. F. Shallenberger.	Mrs. M. T. Harrison.
Mrs. Guy Lunsford.	Mrs. L. C. Fischer.
Mrs. L. N. Turk.	Mrs. J. Harris Dew.
Mrs. M. P. Powell.	Mrs. Grady E. Clay.
Mrs. Vernon Powell.	Mrs. Hines Roberts.
Mrs. Spencer Kirkland.	Mrs. C. W. Harwell.
Mrs. Leo P. Daly.	Mrs. Jas. I. Weinberg.
Mrs. T. J. Collier.	Mrs. Chas. Boynton, Jr.
Mrs. K. E. Foster.	Mrs. Geo. Bachmann.
Mrs. T. P. Goodwyn.	Mrs. Wm. A. Maner.
Mrs. Stacy Howell.	Mrs. Homer Maulding.
Mrs. Geo. Niles.	Mrs. Emory G. Lower.
Mrs. Geo. H. Noble.	Mrs. S. L. Morris.
Mrs. Francis Parker.	Mrs. V. W. Osborne.
Mrs. W. E. Upchurch, Jr.	Mrs. Henry Poer.
Mrs. A. H. Van Dyke.	Mrs. Murdock Equen.
Mrs. C. M. Warnock.	Mrs. Ward B. DuVall.

Mrs. Russell Burke.	Mrs. James King.
Mrs. Sam Stamp.	Mrs. Elbert Agnor.
Mrs. J. F. Arthur.	Mrs. Jas. N. Brawner, Jr.
Mrs. J. P. Hanner.	Mrs. Homer Blincoe.
Mrs. F. P. Calhoun.	Mrs. Frank Blalock.
Mrs. Jas. R. Fu'ler.	Mrs. Guy A. Myers.
Mrs. B. T. Beasley.	Mrs. W. P. Sloan.
Mrs. John Fitts.	Mrs. Shelley C. Davis.
Mrs. Carter Smith.	Mrs. Cyrus W. Strickler, Sr.
Mrs. Shelley Davis.	Mrs. F. G. Hodgson.
Mrs. H. P. McDonald.	Mrs. R. H. McClung.
Mrs. John Funke.	Mrs. Dick Longino.
Mrs. Jas. L. Pittman.	Mrs. W. L. Curtis.
Mrs. Geo. F. Klugh.	Mrs. Frank K. Boland.
Mrs. F. C. M.ms.	Mrs. Geo. Eubanks.
Mrs. Ralph Mosteller.	Mrs. L. C. Rouglin.
Mrs. A. Worth Hobby.	Mrs. Dewey Nabors.
Mrs. Luther Vinton.	Mrs. Calvin Sandison.
Mrs. Fred F. Rudder.	Mrs. Lamont Henry.
Mrs. W. S. Dorough.	Mrs. Lynn Fort.
Mrs. W. C. Dabney.	Mrs. W. E. Barber.
Mrs. R. G. McAliley.	Mrs. C. E. Waits.
Mrs. Albert Lewis, Jr.	

*Transportation*

Mrs. H. C. Sauls, Atlanta, Chairman.  
 Mrs. F. C. Holden, Atlanta, Co-Chairman.  
 Mrs. Ed Wright, Atlanta.  
 Mrs. Don Cathcart, Atlanta.

*Publicity*

Mrs. J. Harry Rogers, Atlanta, State and Local Chairman.

*Hospitality*

Mrs. J. R. Childs, Atlanta, Chairman.  
 Mrs. R. E. Newberry, Atlanta, Co-Chairman.  
 Mrs. Linton Smith, Atlanta.  
 Mrs. J. W. Landham, Atlanta.  
 Mrs. Hal Davison, Atlanta.  
 Mrs. Geo. Klugh, Jr., Atlanta.  
 Mrs. Mark Dougherty, Atlanta.  
 Mrs. C. E. Rushin, Atlanta.  
 Mrs. J. D. Nall, Atlanta.  
 Mrs. M. K. Bailey, Atlanta.

## P R O G R A M

Biltmore Hotel Headquarters

Tuesday, April 25

*Registration*

*Entertainment and Program*

Tuesday, April 25th. 4:30 to 6:30 P. M.—Dr. and Mrs. Eustace A. Allen—Aperitif Tea, Biltmore Terrace. All members of State Medical Association and their wives invited.

Tuesday, April 25, 8:00 P. M.—Executive Board Meeting, Biltmore Hotel.

Tuesday, April 25, 9:00 P. M.—Dr. and Mrs. B. L. Shackleford, 2665 Arden Road, N. W., Open House. All members of State Medical Association and their wives are invited.

Wednesday, April 26, 9:30 to 12:00—General Meeting.

Wednesday, April 26—Luncheon (place to be announced).



Wednesday, April 26, 3:00 to 5:00—Governor's Mansion, Tea.

Wednesday, April 26, 8:00—Health Films, Biltmore Hotel, 9:00 P. M. Informal Bridge Party on Mezzanine, Biltmore Hotel.

Thursday, April 27, 7:30 A. M.—Mrs. Warren A. Coleman, Eastman, will entertain the Past Presidents of the Auxiliary at a breakfast at the Biltmore Hotel.

Thursday, April 27, 9:30 to 12:00 — General Meeting.

Thursday, April 27, 2:30 P. M.—Garden Tour. Mrs. R. E. Newberry, 2160 Ponce de Leon Avenue, N. E.

Garden Tea, Mrs. O. S. Cofer, 948 Lullwater Road. Antique Glass Exhibit, Mrs. O. H. Matthews, 61 Barksdale Drive.

Thursday, April 27—Banquet.

### PROGRAM

Wednesday, April 26, 1939, 9:30 A. M.

Central Standard Time

Hotel Biltmore

Call to order by the President, Mrs. Warren A. Coleman, Eastman.

#### *Invocation*

Dr. Ryland Knight, Pastor Second Ponce de Leon Baptist Church, Atlanta.

#### *Address of Welcome*

Mrs. Bernard L. Shackelford, Atlanta, President Fulton County Medical Auxiliary.

#### *Response to the Address of Welcome*

Mrs. John A. Corry, Barnesville.

#### *Introduction of Officers and Honor Guests*

Mrs. Charles H. Richardson, Milledgeville.

#### *Address*

"A Woman's Auxiliary, An Opportunity for Service," Dr. Grady Coker, Canton, President Medical Association of Georgia.

#### *Address*

"Present Day Participation of Women in Public Affairs," Mrs. Frank N. Haggard, San Antonio, Texas, First Vice-President, Woman's Auxiliary to American Medical Association.

#### *Report of Entertainment Committee*

Mrs. William A. Smith, Atlanta, Chairman.

Presentation of Pins to Past Presidents of State Auxiliary, Mrs. Joseph Yampolsky, Atlanta.

Rules Governing Convention Procedure, Mrs. Ralph H. Chaney, Augusta, Parliamentarian.

Reading of Minutes.

Reports of District Managers.

Reports of County Presidents.

Report of Executive Committee by Secretary.

Report of Credential Committee by Chairman, Mrs. Forrest M. Barfield, Atlanta.

Appointment of Special Committees.

Adjournment.

THURSDAY, APRIL 27, 9:30 A. M.

Hotel Biltmore

Central Standard Time

Call to Order by the President, Mrs. Warren A. Coleman, Eastman.

#### *Invocation*

Father John Emmert, Atlanta, Sacred Heart Catholic Church.

#### *Address of Welcome*

Mrs. Forrest M. Barfield, Atlanta, President-Elect Fulton County Medical Auxiliary.

#### *Response to Address of Welcome*

Mrs. Fred B. Rawlings, Sandersville.

#### *Report of Advisory Committee to the Woman's Auxiliary*

Dr. James N. Brawner, Atlanta, Chairman.

#### *Address*

"Evolution in the Practice of Medicine," Dr. William H. Myers, Savannah, President-Elect, Medical Association of Georgia.

#### *Address*

"The Doctor's Wife," Mrs. W. K. West, Oklahoma City, President, Auxiliary to Southern Medical Association.

Greetings from the President-Elect of the Southern Medical Auxiliary, Mrs. Charles P. Corn, Greenville, S. C.

#### *Memorial Service*

Mrs. W. A. Selman, Atlanta.

Reading of Minutes.

Report of President.

Report of Officers.

Report of Auditor.

Report of Meeting of Auxiliary to American Medical Association, by Mrs. Jas. N. Brawner, Atlanta.

Report of Auxiliary to S.M.A., Mrs. Olin S. Cofer, Atlanta, Second Vice-President to Southern Medical Auxiliary.

Report of Chairmen of Standing Committees.

Report of Resolutions Committee, Chairman.

Report of Courtesy Committee, Chairman.

Report of Credential Committee, Chairman.

Unfinished Business.

New Business.

Report of Nominating Committee.

Election of Officers.

Announcements by Mrs. Eustace A. Allen, Atlanta.

Adjournment.

The Mrs. James N. Brawner Trophy will be awarded at the Annual Banquet of the Medical Association and the Auxiliary, Thursday evening, April 27, 1939.

THURSDAY, APRIL 27, 2:30 P. M.

Post-Convention Board Meeting, Mrs. Eustace A. Allen, President.

### RULES TO GOVERN THE CONVENTION

1. To gain recognition, a delegate is requested to rise, address the chair, give her name and Auxiliary.

2. No delegate shall speak more than twice on the same subject and is limited to two minutes each time.

3. Reports shall not be read from Auxiliaries which are not represented by delegates but shall be filed with the Secretary.

4. All original motions or resolutions shall be made by submitting two copies, one to the Chairman of the Resolutions Committee and one to the Recording Sec-

retary.

5. Reports of delegates and district managers are limited to three minutes.

6. No one is entitled to vote before she is registered. Whispered conversations greatly retard the business of a meeting.

PLEASE BE PROMPT. Meetings will begin promptly at the time stated in program.

## CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA

### Constitution

#### ARTICLE I.—NAME OF THE ASSOCIATION.

The name and title of this organization shall be the Medical Association of Georgia.

#### ARTICLE II.—PURPOSES OF THE ASSOCIATION.

The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

#### ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county societies which hold charters from this Association.

#### ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Association.

#### ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Association, and shall consist of: (1) delegates elected by the component county societies; (2) the officers of the Association enumerated in Section 1 of Article IX of the Constitution; (3) ex-presidents and delegates to the American Medical Association.

#### ARTICLE VI.—COUNCIL

The Council shall be the Board of Trustees and Finance Committee of the Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of

Delegates be called into session as provided in the Constitution and By-Laws.

It shall consist of the Councilors, the President, the President-Elect and the Secretary-Treasurer of the Association. Five of its members shall constitute a quorum.

#### ARTICLE VII.—SESSIONS AND MEETINGS

Section 1. The annual sessions shall take place on the second Wednesday in May at such place as shall be designated by the Association, provided that in case of conflict with the annual session of the American Medical Association or on petition of the county society of the host city made at least six months before the fixed dates for the annual session, the Council may change the dates by publishing a notice in the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA three months before the session.

Sec. 2. Special meetings of either the Association or the House of Delegates may be called by a two-thirds vote of the Council, or upon the petition of twenty delegates.

#### ARTICLE VIII.—SECTIONS AND DISTRICT SOCIETIES

Section 1. The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor district societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

#### ARTICLE IX.—OFFICERS

Section 1. The officers of this Association shall be a President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and one Councilor for each congressional district in the State.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual meeting of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume his office as President immediately after the next annual meeting following his election. The terms of the Councilors shall be for three years, as may be arranged, viz: the Councilor for the first, second, third and fourth districts for three years; those for the fifth, sixth, seventh, and eighth districts for one year; those for the ninth and tenth districts for two years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed. (1933).

Sec. 3. The officers of this Association shall be elected by ballot at 12 o'clock noon on the third day of the annual session. Nomination for office shall be made orally, but the nominating speech must not exceed two minutes. The Councilors shall be elected at the same time on nomination by their respective district societies at the annual meetings of such societies preceding the annual session of the Association at which the vacancies occur, but if no nomination from a district society is brought before the Association, the nomination for Councilor may be presented from the

floor. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner.

Sec. 4. The members of the State Board of Health shall be nominated by their respective district societies at the annual meeting of such societies preceding the annual session of this Association, and in failure of nomination by district societies, they may be nominated by the delegates present from each of the district societies, all of which shall be ratified by this Association.

#### ARTICLE X.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of \$10.00 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be approved by the Finance Committee before action is taken thereon.

#### ARTICLE XI.—RATIFICATION

The House of Delegates shall submit all questions before it to the Association for ratification.

#### ARTICLE XII.—THE SEAL

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

#### ARTICLE XIII.—AMENDMENTS

Any amendment that may be offered to the Constitution shall lie over until the next annual session; and for its adoption at such session shall require a two-thirds vote of all present and voting.

### By-Laws

#### CHAPTER I.—MEMBERSHIP

Section 1. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Any member for old age, length of service, or other good reasons, may, upon recommendation of the Board of Censors, be elected to honorary membership of his county society without dues. Such member shall be enrolled as an honorary member of his county society and the Association, and shall be entitled to all the privileges of the Association.

Sec. 5. In addition to regular and honorary members, upon recommendation of the Board of Censors, associate members and intern members may be elected by any constituent county society without the payment of dues. The associate members will be such as may be eligible for regular membership, but not in very active practice and usually with a very limited income—also certain salaried physicians and members of the Army, Navy, U. S. Public Health Service, etc. Medical Reserve officers, contract surgeons, part-time and full-time civil service employees of the United States Government shall not be exempt from the payment of dues, except when the United States is engaged in war. The associate members are privileged to attend and participate in all scientific meetings, but cannot hold office and do not receive the Journal or benefits of Medical Defense. Intern members are limited to interns in hospitals and are only privileged to attend and participate in scientific meetings. (1933).

Sec. 6. Any physician applying for membership in a component medical society of this Association, who has previously practiced in a county in which affiliation with a component society is provided, and who moves to another county without having affiliated with the medical society in the jurisdiction of previous residence, before he is admitted to membership, the cause for his lack of affiliation in the society of his previous residence shall be ascertained.

#### CHAPTER II.—GENERAL MEETINGS

Sec. 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. Visitors duly accredited to represent the Association of other states, or of the District of Columbia, not exceeding two in number for each organization, may attend upon, and participate in the discussion of the general meetings, but shall not have a vote. Such delegates may read papers upon invitation of the Committee on Scientific Work. The general meetings shall be presided over by the President or by one of the Vice-Presidents.

Sec. 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Sec. 3. Entertainments. Any social entertainment which may be given by this Association shall be confined to the evening of the second day.

Sec. 4. Guests. Any physician not a resident of this State but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session.



## CHAPTER III.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet on the day preceding the first day of the annual session, the time to be fixed by the Committee on Scientific Work. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegate from any county not be present at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. Twenty delegates present shall constitute a quorum.

Sec. 4. It shall, through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests of such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall constitute these efforts until, if possible, every physician in every county of the State has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councilor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

## CHAPTER IV.—DUTIES OF OFFICERS

Section 1. The President shall preside at all meet-

ings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

In order to give him a better opportunity of becoming more fully acquainted with his duties and with the needs of the Association, the President shall be elected one year prior to taking office. During this time he shall be known as President-Elect and shall be ex-officio member of the standing committees, and shall make recommendations at the next annual session.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-Presidents, in their order, shall succeed him.

Sec. 3. The Secretary-Treasurer shall give bond in the sum of One Thousand Dollars. He shall demand and receive all funds due the Association, together with the bequests and donations.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members, delegates and accredited visitors at the annual session. He shall, with the co-operation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment and collect the same. Acting with the Committee on Scientific Work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the Journal of the Medical Association of Georgia. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the Journal. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom and all money

disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of May and the last day of April.

#### CHAPTER V.—COUNCIL

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of the Association to organize and outline work for the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. It shall be the business body of the Association and attend to the business of the Association in the interim between meetings.

Sec. 2. Each Councilor shall be organizer and peace-maker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the conditions of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates on a properly itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association. Each Councilor may appoint a Vice-Councilor to assist him in the performance of his duties in that district.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an individual Councilor, or to which attention has been called by the Councilor or interested members. It shall hear and decide all questions affecting unethical conduct on the part of any members at any annual session, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the

Journal of the Medical Association of Georgia, which is the organ of the Association, and all money paid into the treasury as dues shall be received as subscriptions to the Journal.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Finance Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary-Treasurer, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the Journal of the Medical Association of Georgia for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Sec. 7. All commercial exhibits during the annual sessions shall be within the control and direction of the Council.

Sec. 8. In the absence of a Councilor and Vice-Councilor the President is empowered to appoint a representative from the district as acting Councilor, who shall have full rights and power of a Councilor.

Sec. 9. Each Councilor shall render at every session a written report of each county in his district.

Sec. 10. Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidence of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, is subject to have his position declared vacant by the President and a successor appointed by the President.

#### CHAPTER VI.—COMMITTEES

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of four members, one of whom shall be the Secretary-Treasurer. The other three members shall be appointed for terms of one, two, and three years, respectively. The vacancy which will occur each year by the expiration of the term of one member shall be filled by the President with an appointment for three years. The member who has the shortest time to serve



shall be Chairman. The committee shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

This By-Law shall not prohibit the Committee on Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health of the State of Georgia, and a sub-committee of three members from each Councilor District appointed by the chairman when needed. It shall represent the Association in securing and enforcing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates and their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as Chairman of the Committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916), shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical Defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members; to take full charge of such cases, which after investigation, they decide to be proper cases for defense; to defend all such cases in the courts of last resort, to furnish General Counsel and pay court cost usual to such litigation, and reasonable fees for local attorneys as shall be arranged by General Counsel. Provided that any member who has indemnity insurance shall have such insurance bear its portion of the expense. However, they shall not pay, or obligate the Medical Association of Georgia to pay any judgment rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law.

The assistance for defense, as herein provided, shall be available only to members of the Medical Associa-

tion of Georgia in good standing. Any member who has not paid his annual dues by April 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the Committee for this purpose. The member sued, or threatened with suit, shall be consulted and shall have the complete confidence of the Committee in all transactions connected with the investigation in question. The Committee shall have the authority to require of a constituent society or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the enforcement of the Medical Practice Act of this State.

#### CHAPTER VII.—COUNTY SOCIETIES

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one component medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every reputable and legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. No matter what the unethical conduct or discipline of the members of the county society may be, both plaintiff and defendant shall have the right to



appeal to the Council, whose decision shall be final when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves, such member shall be considered to be in good standing in the county society from which he was certified and in the Medical Association of Georgia to the end of the period for which his dues have been paid.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual session of this Association, each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and lists of non-affiliated physicians of the county, to the Secretary of this Association each year, thirty days before the annual session.

Sec. 14. Any county society which fails to pay its assessment, or make the report required, on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to

participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

## CHAPTER VIII.—RULES AND ETHICS

Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 3. The principles of medical ethics of the American Medical Association shall be those of this Association.

Sec. 4. Any member of this Association, on locating in a new place for practicing his profession, may place his professional card, containing name, address, telephone number, and statement as to whether or not his practice will be limited to any particular class of disease, in the local paper for a period of not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory, or other public places, shall be considered unethical.

## CHAPTER IX.—AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the Association after the amendment has lain on the table for one day.

## RESOLUTIONS, MEDICAL ASSOCIATION OF GEORGIA

1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper, shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

1922

Be it Resolved, That the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Councilor district; that a definite time be assigned for reading and discussion of each of these papers, and they be given precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged. The President ruled that this resolution is only a recommendation and not a law.

1928

Resolved, That the delegates to the A. M. A. elected at this and succeeding meetings of the Medical Association of Georgia be installed January 1st, following their election, and that their term of service run for two years thereafter. And be it further

Resolved, That our delegates be authorized to attend the regular and any called meeting of the House of Delegates of the American Medical Association during the term to which they are elected.

1929

Resolved, That in order to expedite the business of the House of Delegates, all reports of special and regular committees of the Association involving matters of public policy, legislation or appropriation of the funds of the Association be submitted in writing to the Secretary of the Association a sufficient time in advance of the regular annual session, about March 15th, to permit of the publication of said recommendations either in the official program prior to the session or in a special circular that shall be mailed to the constituent societies, in order that the delegates may be advised of the proposed changes.

1938

Resolved, That the House of Delegates set the amount of dues at \$7.00 per capita for the year 1939.

#### NEWS ITEMS

DR. JNO. W. SIMMONS, Brunswick, parliamentarian of the Association, spoke at the weekly meeting of the Brunswick Rotary Club, January 24, on *Facts of the Indictments Against the American Medical Association*.

DR. E. CARSON DEMMOND, Savannah, was a guest speaker at a meeting of the Woman's Auxiliary to the Georgia Medical Society on February 1.

THE SPALDING COUNTY MEDICAL SOCIETY held its annual banquet at the Everee Club on January 24.

DR. CHAS. R. ARP, Atlanta, has been appointed first lieutenant in the medical reserve corps of the Fourth Corps Area.

DR. JOSEPH KRAFKA, JR., Augusta, spoke at a meeting of the Science Club at Augusta, January 27, on *The Medical History of Early Georgia*.

THE REGULAR MONTHLY STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held on February 9. Mortalities discussed included: *Duodenal Ulcer*, by Dr. Geo. H. Noble; *Bronchial Pneumonia*, *Hypertensive Heart Disease*, and *Arteriosclerosis*, Dr. George Williams; *Carcinoma of the Sigmoid*, *Intestinal Obstruction and Adhesions to Intestines*, Dr. W. W. Daniel; *Arthritis in Region of Left Hip*, Dr. W. S. Goldsmith; *Hemorrhage Following Delivery*, Dr. G. B. Timberlake; *Acute Pancreatitis*, Dr. C. G. McCay; *Heart Disease*, Dr. M. T. Benson; *Lobar Pneumonia*, Dr. H. G. Estes; *Stenosis Esophageal* and *Acute Cardiac Decompensation*, Dr. J. J. Martin; *Pneumonia and Cirrhosis of the Liver*, Dr. H. M. S. Adams.

THE ATLANTA CLINICAL SOCIETY sponsored three lectures by Dr. Louis H. Newburgh, professor of Clinical Investigation, University of Michigan, February 8, 9, 10. Subjects discussed were: 1. *Method for Studying Exchange of Water Between the Human Organism and the Environment*; 2. *Pathological Shifts in Water and Salts as Exemplified by Quantitative Study of These Conditions in Patients with Special Attention to Obesity and Edema*; 3. *Pathological Shifts in Water and Salts as Exemplified by Quantitative Study of These Conditions in Patients with Special Attention to Preoperative and Postoperative Care*.

THE MERIWETHER COUNTY MEDICAL SOCIETY held its monthly meeting in Greenville, February 6. Dr. R. B. Gilbert, Greenville, efficient secretary-treasurer of the Society for many years, entertained its members and visitors at a bird supper. A round-table conference was held. Those present were: Dr. W. P. Allen, Woodbury; Dr. V. H. Bennett, Gay; Dr. J. A. Johnson, Dr. W. P. Kirkland and Dr. Jackson, all of Manchester; Dr. R. B. Gilbert, Greenville; Dr. C. W. Roberts, Dr. W. A. Selman and Dr. Edgar D. Shanks, all of Atlanta.

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall, Macon, February 7. Dr. Y. H. Yarbrough, Milledgeville, spoke on *Relation of Mental Illness to Physical Illness*.

DR. V. P. SYDENSTRICKER, Augusta, professor of medicine at the University of Georgia School of Medicine, spoke before a meeting of the Southern Interurban Clinicians Club at Nashville, Tenn., held on January 27-28, on *Haemolytic Icterus following Splenectomy for Thrombocytopenic Purpura*. Dr. Sydenstricker was president of the Club in 1938.

THE STAFF MEETING of Emory University Hospital, Emory University, was held on February 6. Dr. Daniel C. Elkin and Dr. Geo. A. Holloway reported a case, *Starvation Anemia Following Peptic Ulcer with Pyloric Stenosis*; Dr. F. M. Atkins, Dr. T. E. McGeachy and Dr. Roy R. Kracke, *Questionable Pernicious Anemia*; Dr. Jno. B. Duncan and Dr. Hardin, *Dissecting Aneurysm of the Aorta with Post Mortem Findings*; discussed by Dr. T. Sterling Claiborne and Dr. L. Minor Blackford.

DR. GUY G. LUNSFORD, Atlanta, State Department of Public Health, was a speaker on the program of the Georgia Forum Lectures at Dugas Hall, Augusta, January 29.

DR. MARION T. BENSON, Atlanta, spoke at a meeting of the Woman's Auxiliary to the Fulton County Medical Society at the Academy of Medicine, Atlanta, February 3, on *History of Anesthesia*.

DR. JOHN L. ELLIOTT, Savannah, was elected coroner for Chatham county without opposition to succeed the late Dr. G. H. Johnson.

DR. L. C. FISCHER, Atlanta, spoke before a meeting of the Griffin Rotary Club on February 2. He explained the hospitalization plan.

DR. CHAS. C. HARROLD, Macon, spoke before a meeting of the Macon Social Workers Club, February 6, on *Socialized Medicine*.

DR. J. R. GARNER, Atlanta, chief surgeon for the A. & W. P. R. R., Western Railway of Alabama and the Georgia Railroad, announces the following changes in the surgical staff, effective February 10: Dr. Hugh M. Lokey, Atlanta, oculist for the A. & W. P. R. R., and consulting oculist for all lines; Dr. Grady E. Clay, Atlanta, oculist for the A. & W. P. R. R. and Ga. R. R.; Dr. J. Victor Roule, Augusta, oculist for the Georgia R. R.

DR. T. I. WILLINGHAM, Atlanta, has been re-elected chairman of the medical staff of the Atlanta Tuberculosis Association.

DR. EXUM WALKER, formerly associated with Dr. E. F. Fincher, announces the removal of his offices to Suite 505 Doctors Building, 478 Peachtree Street, N. E., Atlanta. Practice limited to neurological surgery.

THE FOURTH DISTRICT MEDICAL SOCIETY met at the Everee Club, Griffin, February 22. Speakers on the program were: Dr. Hugh Wood, Dr. Herschel Crawford, Dr. M. K. Bailey and Dr. Exum Walker, all of Atlanta; Dr. Grady Coker, Canton, president of the Medical Association of Georgia; Dr. Edgar D. Shanks, Atlanta, Secretary-Treasurer of the Association.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on February 28. The program was devoted to a discussion of the *Group Hospitalization Plan*. Dr. T. P. Waring led the general discussion.

THE TOOMBS COUNTY MEDICAL SOCIETY, in cooperation with the Toombs County Board of Health, has arranged to open two clinics in the county, at Lyons and Vidalia. Dr. H. D. Youmans is president of the society and Dr. W. W. Aiken is secretary.

DR. W. C. MCGEARY, Madison, after losing his office and hospital equipment in a recent fire in the Vason Building, announces the opening of offices on the second floor of the Foster Building.

DR. HARRY E. TEASLEY, Hartwell, has resumed his practice after taking a six months' post-graduate course in Chicago.

DR. M. A. EHRLICH, Bainbridge, was a guest speaker before the Florida A. & M. Clinical Association in Tallahassee, Florida, at its recent annual meeting. Dr. Ehrlich spoke on *Allergy*.

DR. S. C. RUTLAND, LaGrange, was the principle speaker before St. Mark's Auxiliary, February 20, on the health program of LaGrange and Troup county.

THE TATTNALL COUNTY MEDICAL SOCIETY met at Reidsville on February 8. A shad dinner was served at Rogers' Cafe.

THE RANDOLPH COUNTY MEDICAL SOCIETY met at the Patterson Hotel, Cuthbert, March 2.

THE SURGICAL ASSOCIATION of the Atlanta and West Point R. R. Co., the Western Railway of Alabama and Georgia Railroad, held its nineteenth annual

meeting at the Biltmore Hotel, Atlanta, March 21. Titles of papers on the scientific program were: *Eye Injuries*, by Dr. S. J. Lewis, Augusta; discussed by Dr. Herschel C. Crawford and Dr. Grady E. Clay, both of Atlanta. *Management of Minor Injuries*, discussed by Dr. A. W. Davis, Warrenton. *Osteomyelitis*, Dr. H. M. Michel, Augusta; discussed by Dr. Lawson Thornton, Atlanta, and Dr. C. W. Harvey, Hogansville. *Dislocation of the Shoulder*, Dr. W. H. Clark, LaGrange; discussed by Dr. J. S. Holder, LaGrange, and Dr. John P. Garner, Atlanta. *Treatment of Fractures in General*, Dr. Richard Binion, Milledgeville; discussed by Dr. J. Weyman Davis, Athens. *Roentgenology* (President's Address), Dr. Rupert H. Fike, Atlanta; discussed by Dr. L. P. Holmes, Augusta. *Coronary Occlusion*, Dr. Geo. A. Traylor, Augusta; discussed by Dr. H. Cliff Sauls and Dr. Wm. Carter Smith, both of Atlanta. *Traumatic Injuries of the Abdomen*, Dr. Floyd W. McRae, Atlanta; discussed by Dr. Harry Moses, Macon, and Dr. C. E. Wills, Washington. *Plastic Surgery* (Guest Speaker) Dr. Wm. G. Hamm, Atlanta. *Injuries to the Elbow*, Dr. R. H. McDonald, Newnan; discussed by Dr. J. Calvin Sandison, Atlanta, and Dr. Goodwin Ghesling, Greensboro. *Back Injuries*, Dr. Edgar F. Fincher, Atlanta; discussed by Dr. J. C. Blalock, Atlanta. *Injuries to the Kidney*, Dr. W. C. McGeary, Madison; discussed by Dr. Montague L. Boyd and Dr. Edgar H. Greene, both of Atlanta. Dr. J. R. Garner, Atlanta, is chief surgeon.

DR. AND MRS. E. L. EVANS, Tifton, entertained the members of the Tift County Medical Society at dinner in their home on February 7.

DR. J. H. MCDUFFIE, Columbus, attended the New Orleans Graduate Medical Assembly which was held in February.

THE TENTH DISTRICT MEDICAL SOCIETY met at Athens, February 8. Titles of papers on the program were: *Internal Urethrotomy*, by Dr. J. Righton Robertson, Augusta; *Treatment of Fractures of the Neck of the Femur*, Dr. J. Weyman Davis, Athens; *Report of Five Cases of Gonorrheal Ophthalmia*, Dr. Lewis S. Patton, Athens; *Report of a Case of Typhoid Perforation*, Dr. D. N. Thompson, Elberton; *Report of Four Cases of Calcium Deficiency*, Dr. John A. Simpson, Athens; *Case Reports of Breech and Transverse Presentations Converted into Vertex Presentations by Means of External Version*, Dr. H. B. Harris, Athens; *Report of Severe Comatose Diabetic with Treatment*, Dr. H. I. Reynolds, Athens.

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall, Macon, February 21. Dr. J. D. Applewhite spoke on the *Tuberculosis Situation of Bibb County*.

THE E. BATES BLOCK MEMORIAL LECTURE was delivered by Dr. M. M. Canavan, curator of the Warren Anatomical Museum, Harvard Medical School, Boston, Mass., at the Academy of Medicine, Atlanta, February 23. Dr. Canavan spoke on *Changes in the Spinal Cord in Mental Disease and Defect*, and reported on *Six Hundred Cases Examined by the Method of Weigert for Demonstrating Myelin Sheaths*.



DR. ALBERT FLEMING and DR. JAS. L. SAWYER, Folkston, entertained the members of the Ware County Medical Society to their annual shad supper at the Folkston school building on February 22.

THE ROBERT WINSHIP CLINIC holds tumor conferences at Emory University Hospital, Emory University, every Tuesday from 2:00 to 3:00 P. M. All members of the medical profession are invited to attend.

DR. EVERETT L. BISHOP, Atlanta, has been re-appointed a member of the Committee on Bone Sarcoma of the American College of Surgeons.

DR. H. C. SCHENCK, Atlanta, director of the Georgia Division of Tuberculosis Control, State Department of Public Health, was the principal speaker at the thirtieth annual meeting of the Atlanta Tuberculosis Association, February 16.

THE COBB COUNTY MEDICAL SOCIETY met at Marietta on February 7. Dr. Calhoun McDougall, Atlanta, read a paper on *Sinuses*; Dr. Wm. O. Martin, Jr., Atlanta, showed lantern slides on various forms of eye diseases; Dr. W. C. Mitchell, Smyrna, reported cases.

THE CHEROKEE-PICKENS COUNTIES MEDICAL SOCIETY met at Canton on February 9.

DR. W. EDWARD STOREY, Columbus, spoke before a meeting of the Columbus Junior League February 7.

DR. G. LOMBARD KELLY, Augusta, dean of the University of Georgia School of Medicine, attended the annual meeting of the Association of American Medical Colleges held recently in Chicago.

DR. W. A. SELMAN, Atlanta, spoke before a meeting of the LaGrange Lions Club February 14 on the *Value and Use of Sulfanilamide*.

ADVISORY COMMITTEE, Crippled Children's Service of the State Department of Public Welfare, met in Suite 231 Hurt Building, Atlanta, February 27. Dr. Martin T. Myers, Atlanta, is director of the Crippled Children's Division. Other members of the Committee are: Dr. F. G. Hodgson, Atlanta, director; Dr. J. H. Kite, Atlanta; Dr. H. M. Michel, Augusta; Dr. J. R. Wilson, Thomson; Dr. Grady N. Coker, Canton; Dr. W. G. Hamm, Atlanta; Dr. M. Hines Roberts, Atlanta, and Dr. Edgar D. Shanks, Atlanta.

ON A RECENT SPEAKING TOUR Dr. Roy R. Kracke of Emory University, spoke on February 15th, to the Morgan County Medical Society of Alabama, and on February 16th to the State Association of Laboratory Technicians of Tennessee; on the 17th to the Mid-South Post Graduate Assembly, Memphis; on the 18th, at the annual banquet of the Alumni of George Washington University, Washington, D. C., and on the 20th, to the Southern Dental Association, Montgomery, Ala. These lectures dealt with various phases of diseases of the blood.

DR. HORACE DARDEN, Sparta, is now 81 years of age, graduated from the University of Georgia School of Medicine on March 1, 1879. He has been actively and continuously engaged in the practice of medicine

for sixty years. Dr. Darden is yet active and does an extensive practice.

THE SECOND DISTRICT MEDICAL SOCIETY will meet at Colquitt on April 14. Dr. Leo M. Koster, New York City, will speak on some phase of surgery; Dr. James E. Paullin, Atlanta; Dr. H. B. Jenkins, Donalsonville, and Dr. J. J. Collins, Thomasville, will be speakers on the scientific program.

THE FIFTH DISTRICT MEDICAL SOCIETY will meet at the Academy of Medicine, Atlanta, April 13. Titles of addresses on the program consist of a *Symposium on the Clinical Aspects of Pellagra*, by Dr. Tom D. Spies, Cincinnati, Ohio, associate professor of medicine, University of Cincinnati College of Medicine; Dr. V. P. Sydenstricker, Augusta; Dr. James S. McLester, professor of medicine, University of Alabama School of Medicine and past president of the American Medical Association. Dr. A. Benson Cannon, New York City, associate professor of dermatology, Columbia University College of Physicians and Surgeons, will speak on the *Comparative Value of Anti-Syphilitic Drugs and the Problem of the Wassermann-Fast Patient*.

#### COUNTIES REPORTING FOR 1939

##### *Randolph County Medical Society*

The Randolph County Medical Society announces the following officers for 1939:

President—T. F. Harper, Coleman.  
Vice-President—W. W. Crook, Cuthbert.  
Secretary-Treasurer—W. G. Elliott, Cuthbert.  
Delegate—Loren Gary, Jr., Shellman.  
Alternate Delegate—F. M. Martin, Shellman.

##### *Tift County Medical Society*

The Tift County Medical Society announces the following officers for 1939:

President—E. L. Evans, Tifton.  
Vice-President—W. H. Hendricks, Tifton.  
Secretary-Treasurer—C. S. Pittman, Tifton.  
Delegates—C. A. Fleming, Tifton.

##### *Terrell County Medical Society*

The Terrell County Medical Society announces the following officers for 1939:

President—Guy Chappell, Dawson.  
Vice-President—J. C. Tidmore, Dawson.  
Secretary-Treasurer—Steve P. Kenyon, Dawson.  
Delegate—Steve P. Kenyon, Dawson.  
Alternate Delegate—J. T. Arnold, Parrott.

##### *Colquitt County Medical Society*

The Colquitt County Medical Society announces the following officers for 1939:

President—J. B. Woodall, Moultrie.  
Vice-President—C. B. Slocumb, Doerun.  
Secretary-Treasurer—S. M. Withers, Moultrie.  
Delegate—C. C. Brannen, Moultrie.  
Alternate Delegate—W. R. McGinty, Moultrie.

##### *Hart County Medical Society*

The Hart County Medical Society announces the following officers for 1939:

President—A. O. Meredith, Hartwell.  
Vice-President—H. E. Teasley, Hartwell.

Secretary-Treasurer—G. T. Harper, Dewy Rose, Rt. 1.

Delegate—W. E. McCurry, Hartwell.

*Ocmulgee Medical Society*  
(Bleckley, Dodge, Pulaski Counties)

President—H. M. Tolleson, Eastman.

Vice-President—R. L. Whipple, Cochran.

Secretary-Treasurer—I. J. Parkerson, Eastman.

Delegate—W. A. Coleman, Eastman.

*Appling County Medical Society*

The Appling County Medical Society announces the following officers for 1939:

President—Dr. E. J. Overstreet, Baxley.

Secretary-Treasurer—J. T. Holt, Baxley.

Delegate—W. T. Kelley, Baxley.

*Baldwin County Medical Society*

The Baldwin County Medical Society announces the following officers for 1939:

President—L. A. Bailey, Milledgeville.

Vice-President—T. C. Clodfelter, Eatonton.

Secretary-Treasurer—J. R. S. Mays, Milledgeville.

Delegate—H. D. Allen, Jr., Milledgeville.

Alternate Delegate—Geo. L. Echols, Milledgeville.

*Chattooga County Medical Society*

The Chattooga County Medical Society announces the following officers for 1939:

President—R. E. Talley, Trion.

Vice-President—Mary Margaret McLeod, Trion.

Secretary-Treasurer—Lee H. Battle, Jr., Trion.

Delegate—C. E. Magoun, Trion.

Alternate Delegate—Paul H. Pernwerth, Trion.

*Clarke-Madison-Oconee Counties Medical Society*

The Clarke-Madison-Oconee Counties Medical Society announces the following officers for 1939:

President—W. H. Cabaniss, Athens.

Vice-President—Geo. W. Kelly, Carlton.

Secretary-Treasurer—Harry E. Talmadge, Athens.

Delegate—W. D. Gholston, Danielsville.

Alternate Delegate—Linton Gerdine, Athens.

*South Georgia Medical Society*

(Berrien, Clinch, Cook, Echols, Lanier and Lowndes Counties)

The South Georgia Medical Society announces the following officers for 1939:

President—P. H. Askew, Jr., Nashville.

Vice-President—Tom H. Smith, Valdosta.

Secretary-Treasurer—W. W. Turner, Nashville.

Delegate—G. T. Crozier, Valdosta.

Alternate Delegate—L. J. Ring, Lenox.

*Blue Ridge Medical Society*

The Blue Ridge Medical Society announces the following officers for 1939:

President—J. M. Daves, Blue Ridge.

Vice-President—E. W. Watkins, Ellijay.

Secretary-Treasurer—C. B. Crawford, Blue Ridge.

Delegate—C. B. Crawford, Blue Ridge.

*Elbert County Medical Society*

The Elbert County Medical Society announces the following officers for 1939:

President—D. V. Bailey, Elberton.

Vice-President—F. A. Smith, Elberton.

Secretary-Treasurer—A. S. Johnson, Elberton.

Delegate—J. E. Johnson, Jr., Elberton.

Alternate Delegate—D. V. Bailey, Elberton.

*Laurens County Medical Society*

The Laurens County Medical Society announces the following officers for 1939:

President—R. G. Ferrell, Jr., Dublin.

Vice-President—J. J. Barton, Dublin.

Secretary-Treasurer—J. A. Bell, Jr., Dublin.

Delegate—O. H. Check, Dublin.

Alternate Delegate—R. G. Ferrell, Jr., Dublin.

*Habersham County Medical Society*

The Habersham County Medical Society announces the following officers for 1939:

President—C. T. Hardman, Tallulah Falls.

Vice-President—W. H. Garrison, Clarksville.

Secretary-Treasurer—B. J. Roberts, Cornelia.

Delegate—B. J. Roberts, Cornelia.

Alternate Delegate—T. H. Brabson, Cornelia.

*Crisp County Medical Society*

The Crisp County Medical Society announces the following officers for 1939:

President—A. J. Whelchel, Cordele.

Vice-President—Chas. Adams, Cordele.

Secretary-Treasurer—L. O. Wootten, Cordele.

Delegate—M. R. Smith, Cordele.

Alternate Delegate—L. O. Wootten, Cordele.

*Tri Medical Society*

(Liberty, Long, McIntosh Counties)

The Tri Medical Society announces the following officers for 1939:

President—I. G. Armistead, Townsend.

Vice-President—T. W. Welborn, Hinesville.

Secretary-Treasurer—O. D. Middleton, Ludowici.

Delegate—O. D. Middleton, Ludowici.

Alternate Delegate—T. W. Welborn, Hinesville.

*Telfair County Medical Society*

The Telfair County Medical Society announces the following officers for 1939:

President—F. R. Mann, McRae.

Secretary-Treasurer—F. P. Harbin, Lumber City.

Delegate—J. D. Stillwell, McRae.

Alternate Delegate—C. J. Maloy, McRae.

*McDuffie County Medical Society*

The McDuffie County Medical Society announces the following officers for 1939:

President—J. R. Wilson, Thomson.

Vice-President—B. F. Riley, Thomson.

Secretary-Treasurer—C. W. Churchill, Thomson.

Delegate—B. F. Riley, Thomson.

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OBITUARY

*Dr. George Campbell Mizell*, Atlanta; member; Atlanta College of Physicians and Surgeons, Atlanta, 1901; aged 62; died at his home after an extended illness on February 4, 1939. He was born and reared at Tuskegee, Ala. He retired from practice about six months ago on account of ill health. Dr. Mizell was actively engaged in the practice of internal medicine in

Atlanta for more than thirty-five years. He was held in high esteem by hundreds of his clientele and physicians recognized his sterling ability. He was a member of the Masonic Lodge, Shrine, Fulton County Medical Society, Southern Medical Association, American College of Physicians, American Medical Association and the Peachtree Road Methodist church. Rev. Robert W. Burns and Rev. Thomas H. Shackelford officiated at funeral services conducted at Spring Hill chapel. Burial was in West View cemetery. About thirty members of the Fulton County Medical Society formed an honorary escort.

*Dr. John M. C. McAllister*, Rochelle; member; University of Georgia School of Medicine, Augusta, 1902; aged 59; died of heart disease at his home on January 25, 1939. He was a native of Montgomery county. He began practice in Mt. Vernon, then after one year, moved to Lothaire and practiced there for a year; returned to Mt. Vernon and practiced two years; then removed to Rochelle where he spent the remainder of his life in general practice. Dr. McAllister took post-graduate courses at the New York Polyclinic Medical School and Hospital, New York City, and at other schools at intervals during his career as a practitioner. The people recognized his ability as a practitioner as shown by his wide circle of clients and friends in Wilcox and adjoining counties. Dr. McAllister was a member of the Masonic Lodge and Methodist church. He married Miss Birdie Alma Mason of Mt. Vernon in 1909. Surviving him are his widow, four sons, Dr. Robert W. McAllister, Macon; John M. McAllister, Atlanta; Harry M. and James H. McAllister, Rochelle; two brothers, Dr. J. A. McAllister, Leavenworth, Kansas, and W. C. McAllister, Mt. Vernon; four sisters, Mrs. R. F. McRae and Miss Gladys McAllister, Mt. Vernon; Mrs. S. V. Hicks, McRae, and Mrs. A. P. Hicks, Pensacola, Fla. Rev. B. F. West officiated at the funeral services conducted at the home. Burial was in Mount Vernon cemetery.

*Dr. William Thomas Asher*, Atlanta; member; Emory University School of Medicine, Emory University, 1893; aged 68; died at a private hospital in Atlanta on February 7, 1939. He was a native of Atlanta and had practiced medicine for forty-five years. His practice was limited to internal medicine. Dr. Asher was a member of the Fulton County Medical Society, American Medical Association, Royal Arch Masons, Shrine, and the Druid Hills Presbyterian church. Surviving him are his widow, one daughter, Mrs. William I. Drewry, Birmingham, Ala.; two sons, William T. Asher and John Alvin Asher. Dr. William M. Elliott, Jr., officiated at the funeral services conducted from the Druid Hills Presbyterian church. Burial was in Oakland cemetery. Pallbearers included: Dr. Earl Floyd, Dr. W. L. Champion and Dr. Archibald Smith.

*Dr. Paul Eugene Lineback*, Emory University; member; Drake University College of Medicine, Des Moines, Iowa, 1911; aged 59; died at Emory University Hospital on February 28, 1939 after a short illness. He was a native of Winston-Salem, N. C. In 1912 and 1913 he served as professor of anatomy at Drake Uni-

versity College of Medicine, and in 1914 practiced at Anaconda, Montana; later he continued his studies at Harvard University Medical School, Boston, Mass. Dr. Lineback was professor of microanatomy at Emory University School of Medicine for more than twenty years. He was one of two southerners selected to contribute to the Carnegie Institute on anatomy and received an honorary lectureship at the University of London. What might best be said about Dr. Linebeck is quoted from one of the faculty as follows: "Emory has lost one of her most valuable assets. Dr. Linebeck was a superb teacher, a valuable leader in our medical school, and a man of sterling personal character. His loss will be felt keenly by the entire University and the world of medical science." He was a member of the Fulton County Medical Society, American College of Physicians, American Association of Anatomists, American Medical Association, a number of fraternal organizations and the First Christian church of Atlanta. Surviving him are his widow; two sons, Carl and Merrill Lineback; one daughter, Miss Ruth Lineback. Dr. Robert W. Burns, Bishop Warren A. Candler, Dr. Franklin N. Parker, and Dr. Louie D. Newton officiated at the funeral services conducted from the Glenn Memorial church. Burial was in West View cemetery. Physicians who were pallbearers included: Dr. Daniel C. Elkin, Dr. C. W. Harwell, Dr. A. Park McGinty, Dr. Russell H. Oppenheimer. An honorary escort was formed from the officers and faculty of Emory University, student body, and the Fulton County Medical Society.

#### NATIONAL LIBRARY OF PEIPING

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January 11, 1939.

Dear Sir:

Ever since Japan's military occupation of Peiping, all national institutions of learning in that historical city have been unable to function. In view of this situation, we have established an office at Kunming, Yunnan. We have been collecting books and journals in order to meet the intellectual needs of Chinese scholars in this hour of distress. As many of our universities and scientific institutions have been deliberately destroyed by Japanese militarists, the need of scientific literature felt by Chinese scholars is especially urgent at the present time.

In order to keep Chinese scholars informed as to the recent development of various branches of science, we are building up a special Reprint Collection which will be of great value to investigators engaged in scientific research.

Knowing that your institution has made notable contributions to learning and cognizant of your intellectual sympathy for China, we earnestly hope that you will find it possible to ask each member of your scientific staff to send us a complete set of his reprints if they are still available for distribution.

As we have to start our work entirely afresh, we are in urgent need of books and periodicals of all kinds, old or new, especially standard works in various fields. Donations of books from American and Canadian

(Continued on page 144)



## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

### PELLAGRA—WHAT IS THE PROBLEM?

This disease has attracted the attention of medical men and scientists for a long time. Many theories and ideas concerning its cause have been advanced. Through the tireless work of Goldberger and others, our knowledge has been increased, but the true nature of pellagra in some respects remains unknown. More information concerning the age, color and sex distribution is to be desired. The geographical distribution of cases should be further investigated. Epidemiologic studies should be carried out as regards the historical, physical and clinical aspect of each case as well as the dietary regime. Until these things can be done, it is my belief that very little more will be added to our information concerning many factors involved in the etiology of this disease.

No one can doubt but that the introduction of nicotinic acid has been a God-send to pellagrins. The literature already contains many accounts of the miraculous results obtained by the administration of this substance.

	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923
Total	370	391	365	351	421	492	563	713	871	846	617	425	366	337	444
White	175	184	190	163	179	205	192	255	334	358	292	225	181	181	227
Colored	195	207	175	188	242	287	371	458	537	488	325	200	185	156	217

I would in no way belittle this wonderful discovery. It probably will save many lives. But what about prevention? The work of Spies, Grant, Stone, and McLester,<sup>1</sup> who have made a study on the preventive phase, indicates that as long as the drug is administered, patients remain free of the disease, but provided there is no dietary change the patients develop pellagra upon withdrawal of the drug. Their findings are what one would expect. In the field of prevention, this great discovery offers little hope in the solution of the problem.

The problem of prevention is hopelessly interwoven with the habits and customs of the people, with lack of education, with the economic, agricultural, and social levels of the masses. The hope of prevention, at the present time, lies in the evolution of all of these phases of life.

The problem in Georgia is probably best reflected in the number of deaths each year from this disease.

It will be seen by looking at the annual deaths that there is considerable variation in the number each year. The average annual deaths from pellagra based on the 15 years

shown above, would be 475.2 deaths per year. If we accept the death rate as being 2 to 3 per cent of the cases (in this instance using 3 per cent) Georgia should have approximately 15,840 cases, based on the average, during any given year. This is an appalling number of cases when we think about it. This number represents approximately one-half of one per cent of the population of the State. Hundreds of these patients are never seen by a physician, and many are not recognized as having pellagra. Undoubtedly, many cases of subclinical pellagra occur. Reports of cases and deaths are rare in children, but many cases occur and children die with the disease.

The fight to enlighten the people, to improve the economic and social standards must continue. Balanced diets must be provided through a diversification of agriculture and a desire upon the part of the people. These things are very simple to mention but much more difficult to accomplish. Particularly is this true in the lower classes. Habits of eating have become so in this group largely due

to economic necessity. That these habits must be changed to prevent pellagra cannot be doubted, at least in a large number of these people. They are not only deficient in the pellagra preventive factor, but in proteins and usually the other vitamins. If nicotinic acid becomes part of the diet of cornbread, molasses, and fatback, have we prevented the other deficiencies? Do we know what effect the long and continued use of nicotinic acid may be? Until it has had long clinical use, I would hesitate to advocate its incorporation into the food substances which make up the diets of the lower classes. Substitution in the diet probably offers the best solution in the attack on this problem at the present time. There is a substance. It is cheap. It is palatable. It may easily be incorporated in the diet. It is rich in the pellagra preventive factor and rich in proteins. This substance is peanut flour. It is made from selected peanuts, finely ground, and only a very small amount of the oil remains. Menus have been worked out by the Georgia Experimental Station incorporating this flour in diets within the means of the poor people. Peanut flour can now be bought for ten cents a pound and

with increased use will become cheaper. I believe that peanut flour will be of great value in prevention and a desirable adjunct in treatment.

C. D. BOWDOIN, M.D., *Director,*  
*Division of Epidemiology.*

1. Spies, Grant, Stone & McLester: Recent Observations on the Treatment of 600 Pellagrins with Special Emphasis on the Use of Nicotinic Acid in Prophylaxis. *Southren Medical Journal*. Dec. 1938, Vol. 31, No. 12, p. 1231.

#### WALKER-CATOOSA-DADE MEDICAL SOCIETY MEETING

The monthly meeting of the Society was held on December 5, 1938 at the office of Dr. B. C. Hale, Rossville.

The meeting was devoted to unfinished business and the election of officers for 1939.

Dr. D. W. Hammond, LaFayette, president, presided. Those present were: Dr. B. C. Hale, Rossville; Dr. F. L. Webb, Fort Oglethorpe; Dr. H. F. Shields, Chickamauga; Dr. J. A. Shields, LaFayette; Dr. R. M. Coulter, LaFayette; Dr. R. C. Shepard, LaFayette, and Dr. Fred H. Simonton, Chickamauga.

The meeting of Dr. D. W. Hammond, Dr. S. B. Kitchens and Dr. R. C. Shepard with the administrator of the Farm Security Administration on November 15 was explained. The plan to supply medical care for the clients of the Farm Security Administration was reviewed. The Society agreed to render medical care for the clients of the Administration and appointed Dr. Chas. W. Stephenson, Dr. D. W. Hammond and Dr. Fred H. Simonton to write such rules as might be needed.

Dr. B. C. Hale reported that about forty physicians in Chattanooga and Hamilton County, Tennessee, wanted to affiliate with the Walker-Catoosa-Dade Medical Society. The matter was discussed and tabled for later disposal.

Officers were elected unanimously for 1939 on motion by Dr. D. W. Hammond.

The February meeting was held in LaFayette.

RICHARD C. SHEPARD, M.D.,  
*Secretary-Treasurer.*

#### ANNOUNCEMENT

The American Board of Ophthalmology announces an important change in its method of examination of candidates for the Board's certificate.

Examinations will be divided into two parts. Candidates whose applications are accepted will be required to pass a *written* examination which will be held simultaneously in various cities throughout the country approximately 60 days prior to the date of the oral examination.

The *written* examination will include all of the subjects previously covered by the practical and oral examinations.

*Oral* examinations will be held at the time and place of the meeting of the American Medical Association and of the American Academy of Ophthalmology and Oto-Laryngology, and occasionally in connection with other important medical meetings. The *oral* examination will be on the following subjects: External Dis-

eases, Ophthalmology, Pathology, Refraction, Ocular Motility, Practical Surgery.

Only those candidates who pass the written examination and who have presented satisfactory case reports will be permitted to appear for the oral examination.

Examinations scheduled for 1939: *Written*, March 15th and August 5th; *Oral*, St. Louis, May 15th; Chicago, October 6th.

Applications for permission to take the written examination March 15th must be filed with the Secretary not later than February 15th.

Application forms and detailed information should be secured at once from Dr. John Green, Secretary, 6830 Waterman Ave., St. Louis, Mo.

#### ALL BUT JIM

The Committee of Physicians for the Improvement of Medical Care (numbering 700) attacks the House of Delegates of the American Medical Association (representing 100,000) for its opposition to compulsory sickness insurance. With an intolerance unfortunately characteristic of many reformers, it refuses to concede any merit—of character or judgment to those who disagree with it. In its intense single-mindedness, it recalls a song popular during the war—"They Were All Out of Step But Jim!"

Although the A. M. A. has endorsed a large part of the program presented at the National Health Conference and its constituent societies have been working for years on most of the specific problems cited, the Committee of Physicians assails the House of Delegates for "its failure to take a definite stand on some of the vital points in the National Health Program." The Committee complains that the House of Delegates makes no mention of tax-supported aid although organized medicine has been urging tax-supported aid for the indigent and medically indigent since long before the Committee of Physicians came into existence. The Committee alleges that the House of Delegates is silent "on the subject which is most urgently the responsibility of the medical profession, i.e., improvement of the quality of medical care," although organized medicine has repeatedly emphasized this goal and has worked unceasingly toward its attainment. The Committee charges that "the reasons advanced against compulsory health insurance omit consideration of its effects on medical care" although it is precisely because of its adverse effects on medical care that the profession opposes compulsory insurance.

Actually the sore spot is the A. M. A.'s opposition to compulsory sickness insurance, and, since the Committee professes not to advocate the immediate adoption of this system, it is difficult to see the point of its attempt to create a schism in the profession on this issue. The teachers and institutional physicians who are the backbone of the Committee have every opportunity to work within organized medicine to convert the profession to their viewpoint. If they can persuade a majority of the practicing physicians of the country that compulsory insurance would be beneficial to the public health, that would automatically become the policy of organized medicine. Is it the aim of the Committee to

advance a point of view in which it believes by democratic means or to dictate a course to which the majority is opposed?

The harm that labor has suffered through the quarrel between the A. F. of L. and the C. I. O. should warn the profession against a course of intra-professional strife. Surely it is more reasonable to thrash out medical questions without bitterness in medical organizations than to sling mud in the lay press.—*New York Medical Week.*

PHILADELPHIA ACADEMY OF SURGERY  
THE SAMUEL D. GROSS PRIZE  
FIFTEEN HUNDRED DOLLARS

*Essays will be received in competition for the prize until January 1, 1940*

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Goss Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22nd St., Philadelphia," on or before January 1, 1940.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

EDWARD B. HODGE, M.D.,  
CHARLES F. MITCHELL, M.D.,  
CALVIN M. SMYTH, JR., M.D.,  
*Trustees.*

NATIONAL LIBRARY OF PEIPING

(Continued from page 141)

authors may be sent to us care of the International Exchange Service, Smithsonian Institution, Washington, D. C., which makes monthly shipment to China. Should any of your friends be willing to lend a helping hand in the rehabilitation of our collections, will you kindly make the necessary contact for us

As a great deal of scientific work is being carried on in China in spite of the war, your contributions will render a great service to the present and future generations of intellectual workers in this country.

Thanking you in anticipation for your kind co-operation and assistance,

T. L. YUAN, M.D., *Acting Director.*

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## INFECTIOUS MONONUCLEOSIS\*

### *Report of Case*

ALLEN H. BUNCE, M.D.

MARK S. DOUGHERTY, JR., M.D.

*Atlanta*

Although infectious mononucleosis has been known for many years, and more recently carefully studied, no discussion of the subject has taken place before THE MEDICAL ASSOCIATION OF GEORGIA.

### *Report of Case*

A tall, poorly nourished student, aged 21, was seen first at his home, Aug. 1, 1937. He was acutely ill, complaining of sore throat, stiffness of the neck, and pain in both legs. He had been feeling bad for several days, but this was his first day in bed. His temperature was 103F; pulse 110. There was a grayish membrane on the posterior wall of the pharynx which had the appearance of Vincent's angina. The tonsils had been removed and the fossae were normal. The mucous membrane of the mouth was red and the gums were swollen. The posterior cervical lymph nodes were markedly enlarged and sensitive on palpation. The anterior nodes were less enlarged. The axillary nodes could not be felt. The inguinal nodes were uniformly enlarged. The abdominal muscles were tense, and there was some tenderness on pressure over the entire abdomen. The spleen was not palpable. Symptomatic treatment was prescribed.

Examination of smears from the pharynx showed Gram positive lancet-shaped diplococci and small Gram negative intracellular bacilli. No Vincent's organisms were seen. The blood count showed: White cells 6,200; neutrophils 39 per cent; lymphocytes, 61 per cent. Many of the lymphocytes were abnormal in appearance. The red cells showed a slight hemoglobin deficiency. The platelets appeared normal. No malarial parasites were found. The urine contained a trace of albumen.

On the following day the patient was still acutely ill with a fever of 102.4F. The only changes noted on physical examination were an enlarged spleen and palpable axillary nodes. At that time Dr. Francis P. Parker made an examination of the blood. He reported: Hemoglobin, 9.5 grams (55 per cent—New-

comer); white cells, 4,150; neutrophils, 28 per cent (myelocytes, 2 per cent; juveniles, 2 per cent; bands, 7 per cent; segmenters, 17 per cent); lymphocytes, 72 per cent. Both thick and thin smears were negative for malaria. Agglutination tests for typhoid, typhus and undulant fevers were all negative.

On August 3, the pharyngeal membrane had decreased in size; all lymph nodes previously noted were still enlarged. The spleen extended two fingers' breadth below the costal margin and the maximum temperature was 101.5F. Dr. Parker reported as follows on the blood: White cells, 6,940; neutrophils, 48 per cent (juveniles, 4 per cent, bands, 24 per cent, segmenters, 20 per cent); lymphocytes, 52 per cent.

On August 4, Dr. Parker commented as follows: "Examination of stained smear shows a moderate degree of hemoglobin deficiency in the red cells. There are many large mononuclear leukocytes having a rather large irregular or lobulated nucleus with a rather deep blue vacuolated and occasionally granular cytoplasm. This type of cell is looked upon as quite characteristic of acute infectious mononucleosis. The finding of these types with a leukopenia, and deficiency of granular cells, is also characteristic of certain cases of this condition when observed within a few days of onset. The platelets show no abnormality.

"These blood findings in conjunction with the history of sore throat and the lymphadenopathy in the neck and axilla are highly suggestive but not absolutely diagnostic of acute infectious mononucleosis. To make the diagnosis more certain, a heterophile antibody test should be run and I would suggest this being done about next Monday since it takes about seven days for the antibodies to reach sufficient concentration to be diagnostic after the onset of the condition."

The fever gradually subsided and his clinical condition improved slowly with the exception of pains in both legs.

On August 9, we found the following blood picture: Neutrophils, 17 per cent; lymphocytes, 81 per cent; monocytes, 2 per cent. Heterophile antibody test: Agglutination positive in dilution of 1:4 to 1:256.

The blood culture obtained by us on August 1 and that obtained by Dr. Parker on August 2 were both negative. The throat culture was negative for diphtheria. Subsequent smears from the throat were negative for Vincent's organisms.

Because of his continued weakness, inability to take proper nourishment and aching legs he was transferred to the hospital on August 12, where he remained until August 26. On admission he weighed only 114

\*Read before the Medical Association of Georgia, Augusta, April 28, 1938.

pounds although he was 6 feet and 1 inch tall. He gained 4 pounds in weight while in the hospital. His temperature remained normal or below normal except for a rise to 99F on August 16. He was able to return to school one week after leaving the hospital.

While in the hospital roentgen examinations of his sinuses, chest and gastro-intestinal tract revealed no abnormalities.

Table I, which showed a summary of blood findings made from time to time; and Plates I and II which gave a characteristic blood picture of the disease, were illustrated with lantern slides before the meeting of the Association. All are omitted here but will appear in the reprints.

### *Comment*

A brief review of some of the important developments of our knowledge of infectious mononucleosis is as follows:

Kracke and Garver<sup>1</sup> state the first record of this disease was a report by Filatow, in Russia, in 1885 and that Pfeiffer established it as a clinical entity in 1889, calling it glandular fever. The first cases reported in America were by West of an epidemic in 1896 involving 96 children.

Subsequently numerous reports both of epidemics and of sporadic cases appeared in the American literature. Most of the cases recorded were in young adults. There was no uniformity in the nomenclature until Sprunt and Evans,<sup>2</sup> in 1920, suggested that the term infectious mononucleosis be used to describe the group of acute febrile diseases showing generalized enlargement of the lymph nodes, usually accompanied by sore throat, enlargement of the spleen and always accompanied by a benign lymphocytosis. By 1930 this term had come into general use.<sup>3</sup>

The disease may occur in babies as was shown by Price<sup>4</sup> who reported a boy aged seven months in whom the diagnosis was first thought to be acute lymphatic leukemia.

The histology of the lymph nodes was studied by Sprunt and Evans,<sup>2</sup> and others, with the conclusion that there is no characteristic cellular reaction. Fox<sup>5</sup> also made histologic studies and first published photomicrographs. He concluded: "The histology of infectious mononucleosis seems not to be very distinctive, unless it be that there is a marked hyperplasia of all elements with an attempt to retain the architecture of lymph nodes."

In 1933, Osgood<sup>6</sup> observed an abnormality of the nuclei in some of the lymphocytes

characterized by fenestrations which are "actually multiple holes, piercing the nucleus in various directions." He published his report with an illustration in 1935 and stated that he found them in all cases of infectious mononucleosis. In his *Atlas of Hematology*<sup>7</sup> he shows many illustrations with detailed descriptions.

Quite by accident Paul and Bunnell<sup>8</sup> discovered heterophile antibodies in a case of infectious mononucleosis in much higher concentration than had been described in any other clinical condition. They reported four cases in which this phenomenon was studied. Following this, Bunnell<sup>9</sup> tested more than two thousand cases representing seventy-six clinical conditions. With the exception of horse serum disease, he was unable to demonstrate an appreciable increase of heterophile agglutinins for sheep cells above the normal dilution of 1:8. In fifteen cases of infectious mononucleosis he found titers ranging from 1:64 to 1:4,096, the titer depending to a considerable extent upon the stage of the disease and the severity of the illness. This test has become a most valuable procedure in diagnosis. Kracke and Garver<sup>1</sup> give a complete description of the technic.

McKinlay<sup>10</sup> presented a study based upon data acquired over a period of twelve years on fifty-five cases in university students, thirty-eight males and twelve females. "Generalized enlargement of the lymphatic glands was the outstanding and constant clinical feature. . . . Signs of throat infection were present in 78 per cent of cases. . . . The spleen was palpable in 42 per cent of cases; its margin soft and its size never great. . . . The infectious features varied but fever was almost always present with malaise, headache, sweating and chills, listed in the order of frequency. . . . Lymphocytosis, relative and absolute, was 50 per cent or greater in all cases at some time during the course of the disease."

In careful hematologic studies Downey and Stasney<sup>11</sup> concluded that "the blood picture is very characteristic but not absolutely specific, as there are some other types of infection which occasionally show the same blood picture." Their studies of biopsy material showed "the hyperplasia of lymphocytes is not as extensive or as uniform as in cases of lymphatic leukemia. . . . The changes in the

nodes together with the atypical structure of the lymphocytes indicates that the disease is due to infection with some organism or virus which has a very specific stimulating effect on the lymphocytes and reticulum and a depressing effect on the granulocytic system."

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## DISCUSSION ON PAPER OF DR. ALLEN H. BUNCE AND DR. MARK S. DOUGHERTY, JR.

*Dr. Roy R. Kracke (Atlanta):* I want to thank Drs. Bunce and Dougherty for bringing this subject to the attention of this Association, because it is the first time that this question of infectious mononucleosis has been presented on our program, and that is especially important in view of the fact that the disease apparently is increasing in frequency, and in my own experience, many cases of it have gone unrecognized.

I believe infectious mononucleosis is an old disease, for nearly 100 years ago there were reports of an epidemic form of a disease in children that seems to bear some of the earmarks of what we now call infectious mononucleosis.

The etiology is unknown. As Dr. Bunce pointed out, it is characterized by a febrile course, oftentimes generalized lymphadenopathy, splenomegaly in about 40 per cent of the cases, and in a few of those the spleen may be of considerable size. That is of particular importance because of the resemblance to various types of leukemia.

Dr. Bunce did not have time to take up the treatment or prognosis, but the prognosis is usually very good, and as a rule they recover in two to three weeks time.

A peculiar manifestation of infectious mononucleosis is that it occurs in young people mainly, and in some areas it seems to assume a tendency toward epidemic proportions. I have observed it frequently in institutions and schools. At Agnes Scott College I saw a half dozen cases, one following the other quite rapidly, and in practically every university it is found among the students frequently. That has led to considerable speculation as to the etiologic agent and mode of transmission and for this various theories have been ad-

vanced, but none of them has had adequate proof up to this time.

In my opinion, the blood findings in infectious mononucleosis are quite characteristic. Dr. Bunce pointed out that some of them are characterized by leukopenia, particularly in the early stages. However, a rather moderate to severe leukocytosis is the rule, particularly in the latter stages of the disease. I have seen leukocyte counts as high as 60,000 per cubic millimeter, and in that type of patient with peculiar lymphocytes, accompanied by generalized lymphadenopathy and septic throat, the diagnosis of leukemia with its unfortunate prognosis has oftentimes been made.

The characteristic finding in the blood is the peculiar lymphocyte which some hematologists have divided into three or four different types. Dr. Bunce has pointed out the characteristics of these, and the most important one, in my opinion, is the fact that the cytoplasm of these cells shows a peculiar vacuolization, and this is said to be the typical cell of mononucleosis. I believe that we can recognize the disease practically in every case on the finding of considerable numbers of these cells.

The heterophile antibody test has proved to be of considerable value to us, although it is not present in every patient but it is probably present in 90 per cent of the patients. Dr. Sydenstricker, I hope, will mention this question. He has done some very interesting work with this.

I am sure that the disease is oftentimes unrecognized and perhaps diagnosed as septic sore throat, or influenza in its leukopenic phase, and of course many patients recover without its true nature ever having been established.

*Dr. V. P. Sydenstricker (Augusta):* I, like Dr. Kracke, want to thank Dr. Bunce for bringing infectious mononucleosis before the Association because we find it a fairly common disease and one which is frequently unrecognized, probably because the majority of instances are mild and are treated at home and the patients never have a blood examination made. I suspect that four-fifths of the cases are called septic sore throat, "flu" or intestinal influenza or something of that sort.

The clinical picture is one of great variety, and certain patients have a tendency to rather severe gastrointestinal disturbances, with nausea and intestinal pain, sometimes with diarrhea; others have a lethargic state which may last for three or four days. I have seen two patients, both of them children of doctors, who were sent to the hospital with the apprehension that they had lethargic encephalitis, because they slept almost constantly for a number of hours. Still more rarely, a mild morbilliform rash may come on the second or third day and disappear and complicate one's ideas. We have made a habit of studying the blood rather carefully. For a good while it seemed to be a disease almost confined to doctors' families because I suspect they were the people who became alarmed over the child's condition and had blood examinations made, but it is widespread and does tend to occur in epidemics. Some very large epidemics have been ob-



served in Augusta, and something like 250 cases were seen in one boys' school in New England a number of years ago.

I have nothing to add to the physical findings. The spleen is frequently enlarged and sometimes quite large. The blood picture is a thing which always attracts attention, and the false diagnosis of acute leukemia causes untold unnecessary mental anguish to the parents of these children. Sometimes it is very difficult to arrive at a definite diagnosis at once. In a child who is already anemic, as in the patient described by Dr. Bunce, the presence of this sort of blood picture is bound to be very disturbing. Anemia is not usually associated with infectious mononucleosis; that is, there is no relation between them early in the disease, although occasionally in the third or fourth week there is a sharp decline in the red cells and hemoglobin which is disturbing.

The fenestrations in the nuclei are in my opinion much less constant than the vacuolization of the cytoplasm of the cells. I certainly agree with Dr. Kracke in that regard. I suspect that these so-called fenestrations in the nuclei are large masses of oxychromatin in the nuclei of these abnormal lymphocytes.

The importance of the heterophile test is very considerable. It was first pointed out nearly four years ago by Paul and Bunnell, but it is necessary not to depend too much on the presumptive heterophile test. At least 10 per cent of the patients show no definite increase in the titer. We call a titer of one to 128 the upper limit of normal. It is important to do serial tests on these patients because many of them with an initial low titer of 4 or 8 or 16 will go up progressively to 32, 68 or 128; without actually passing the normal level they will show a definite increase in heterophile antibodies, and I think that is quite as helpful as the occurrence of a very high titer.

It is necessary always to use the differential absorption test of Davidsohn. He pointed out that it wasn't uncommon to encounter high heterophile concentrations in children, because the injection of foreign serum will produce an almost permanent increase in the heterophile antibodies. In children who have been given diphtheria antitoxin, or animal serum of any sort heterophile titers well above the diagnostic limit will be encountered and one has to do the differential absorption with guinea-pig kidney pulp and boiled beef cells to absorb out the serum antibodies; and the differential absorption is, I think, entirely specific. It is a trifle laborious, but if the materials are at hand it offers, I believe, absolute diagnosis in cases of mononucleosis.

The differentiation between this disease and acute leukemia is most important on account of the vast difference in prognosis, and the fact that anemia is not present, that the blood platelets are not disturbed in number, that the child's general condition is usually good in spite of a fair amount of prostration with fever, splenomegaly and general adenopathy, immediately leads one to suspect that leukemia is absent, because I think we never see a patient with acute leukemia until a severe degree of anemia already has developed.

*Dr. Harold Bowcock (Atlanta):* I think this report is interesting, because in addition to the presentation

with the very pretty colored slides which Miss Kennedy has made, it brings up several features which are rather unusual in this disease, i.e.: the maintenance of a leukopenia or low white blood cell count throughout the course of the disease, and the presence of anemia. Some anemia was probably present before the onset of infectious mononucleosis. I have not had the opportunity of seeing such a case in which anemia was severe, and we have rather relied on the absence of the development of severe anemia in ruling out a diagnosis of leukemia.

I want to show three lantern slides.

(Slide). This photomicrograph made from a blood smear in a case of infectious mononucleosis shows a very definite mitotic division figure in one of the abdominal white blood cells. One might suspect strongly, on finding a cell of this type, that we were dealing with leukemia because the acute leukemias are so apt to show cells of this sort. I imagine that if we searched carefully in all cases of infectious mononucleosis, we might find in all of them at some time, particularly in those who have high white counts, some mitotic figures. I have found them in three cases.

(Slide). This cell in the blood smear from a case of infectious mononucleosis shows two nuclei in the same abnormal white blood cell. This is another type of cell which is often seen in the leukemias and which might give rise to confusion.

(Slide). This slide shows the type of mitosis or division figure which is usually seen in the acute leukemias, and I think you will recognize that it is different in appearance from the first division figure which I showed. I have never seen this type of division figure in blood from cases of infectious mononucleosis.

These points considered in conjunction with the fact that we do not ever, I believe, see nucleated red blood cells in infectious mononucleosis, help to differentiate it from the leukemic picture.

*Dr. Francis Parker (Atlanta):* I have enjoyed Dr. Bunce's presentation and I want to make one remark in connection with certain intestinal symptoms that may complicate the picture. We have seen recently a Georgia Tech student who was admitted to the Crawford Long Hospital with a presumptive diagnosis of acute appendicitis. When his blood was examined on admission we found no evidence of acute inflammatory condition, but instead he had a very typical blood picture of acute infectious mononucleosis. He had a positive heterophile antibody reaction and a very minimum of sore throat and enlargement of the lymph glands of the neck. I have often wondered if many of the abnormal symptoms might not be due to the lymph gland enlargement being predominantly in the abdominal cavity rather than in the neck or in the axillary regions. This young man showed a gradual subsidence of all abdominal symptoms in two or three days and ran a course which was quite typically that of acute infectious mononucleosis.

*Dr. Allen H. Bunce (Atlanta):* A number of years ago I reported twenty cases of acute lymphatic leukemia with 100 per cent mortality. After I finished, one of

the older men in the Association said. "Bunce, you had hard luck with those cases, didn't you?" Well, I agreed with him. He said, "I wouldn't read another paper like that. They all die." I haven't read another paper on it, but I have continued to study it, and those patients and others that I have seen so impressed me that when I see a blood with a high lymphocyte count, a patient with large glands and a patient that is anemic, I am frightened. I think it much better, though, not to have any blood count at all, much better for the patient and the doctor, and go ahead and treat it for sore throat or flu or what-not, than to make a blood count and state that you have a case of acute lymphatic leukemia, because everyone then is greatly distressed. It is a very simple matter for all of us, a thing that I have done for many years, to carry in my grip a white pipette and a few slides and as this thing occurs in a patient's home, when you have something that looks like it may be an acute thing, go ahead and take some smears, take your count, and have a tube along and get a culture. It is something any of us can do, and it will help us to recognize these cases, which I am sure are much more frequent than we have formerly suspected.

I wish to thank the men for their discussion and to tell you that Miss Kennedy drew some of the originals which are shown in her exhibit.

### MEDICAL LEGISLATION

The Georgia Legislature has adjourned. Medical bills passed at this session include:

1. An enabling bill to carry out the provisions of the constitutional amendment to permit counties to levy a tax for the medical and hospital care of their indigent sick. You should request your county commissioners to levy this tax for 1939.

2. Barbituric acid law. Barbituric acid or its derivatives cannot be dispensed in Georgia after June 1, 1939, except on physicians' prescriptions. The law was amended by the druggists to permit them to dispense amounts of four grains or less to the ounce.

3. Naturalization law, which requires that one be a citizen of the United States before he can receive a license to practice medicine in Georgia.

4. Amendment to Medical Practice Act which permits the Governor to name any licensed physician of Georgia on the State Board of Medical examiners, regardless of the school from which he was graduated.

Dr. R. A. Vonderlehr, U.S.P.H.S., in an address stated that "Syphilis control and education in American Colleges is a real problem." His opinion is that the problem can best be solved by concerted cooperative effort of the college physicians, students and states.

### AMNESIA IN OBSTETRIC PRACTICE\*

#### *A Study of Sodium Pentobarbital (Nembutal) Scopolamine and Sodium Propyl-Methyl-Carbonyl-Allyl Barbiturate (Seconal) Scopolamine†*

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Oblivion to parturition has been the desire of the patient since the first childbirth. It became the aim of the physician less than one hundred years ago when James Young Simpson of Edinburgh introduced in obstetric practice chloroform as a means of assuaging pain.

The present multiplicity of drugs and methods for the relief of pain during labor may well be an indication of the existing chaos. It is not within the scope of this study to compare or to criticize contemporary practices—nor is this paper an attempt to revolutionize obstetric pain-relief by the introduction of a perfect agent. No such drug exists in our present armamentarium. This clinical study involves the use of sodium pentobarbital (nembutal) and sodium propyl-methyl-carbonyl-allyl barbiturate (seconal), each in combination with scopolamine.

The barbiturates mentioned, it must be emphasized, are primarily hypnotic, and perhaps slightly amnesic, drugs. In safe dosages they lack completely analgesic or anesthetic potentialities. The addition of scopolamine hydrobromide, when these short-acting barbituric acid derivatives are employed, adds definite amnesia to hypnosis. This combination of agents, especially sodium pentobarbital (nembutal)-scopolamine, has met with an encouraging degree of success as reported by Averett,<sup>1</sup> Abbott,<sup>2</sup> Rawlings,<sup>3</sup> Edwards,<sup>4</sup> McGuinness,<sup>5</sup> Tritsch and Brown,<sup>6</sup> Galloway, et al.,<sup>7,8</sup> Sellers,<sup>9</sup> Conn,<sup>10</sup> Irving,<sup>11</sup> and Swendson.<sup>12</sup>

\*Read before the Medical Association of Georgia, Augusta, April 28, 1938.

†From the Department of Gynecology and Obstetrics and the Department of Anesthesia, University of Georgia School of Medicine, Augusta.

CHART No. 1

## Primipara

Seconal	Cases	Complete	Amnesia Partial	Failure	Av. Dose Drug	Av. Dose Hyoscine	Av. Time Amnesia Began	Av. Time Amnesia Lasted	Patient Excited	Patient Restless	Co-operation of Patient		
									Yes	Yes	Complete	Partial	Failure
Total Cases	34	30	3	1	gr. VI	gr. 1/85	15 min.	6-8 hrs.	20	25	25	4	5
Staff	34								No 14	No 9			
Private	0								Yes 58.8	Yes 73.5	73.5	11.7	14.8
		88.2	8.8	3.0					No 41.2	No 26.5			
<b>Nembutal</b>													
Total Cases	160	148	8	4	gr. VI	gr. 1/85	30 min.	12-16 hrs.	No 121	Yes 139	64	60	36
Staff	40								Yes 39	No 21			
Private	120								No 75.7	No 86.9			
		92.5	5.0	2.5					Yes 24.3	Yes 13.1	40.0	37.5	22.5

CHART No. 2

Seconal	Cases	Type of Delivery					Condition of Baby	Cyanotic Aponic Baby	Still Born	Cyanotic Breathing Baby	Baby Breathed Im'diately	Baby Resuscitated
		Spon-taneous	Low Forceps	Mid Forceps	High Forceps	Podalic Version						
Total Cases	34		P-0	P-0	P-0	P-0	Good 33					Yes 2
Staff	34	28	S-3	S-3	S-0	S-0	Fair 1	2	2	3	32	No 32
Private	0						Good 91.1					Yes 5.9
		82.4	8.8	8.8	0	0	Fair 2.9	5.9	5.9	8.8	94.1	No 94.1
<b>Nembutal</b>												
Total Cases	160		P-19	P-12	P-4	P-1	Good 143					No 141
Staff	40	115	S- 3	S- 4	S-0	S-2	Fair 10	19	3	16	141	Yes 19
Private	120						Poor 7					No 141
		72.4	13.7	13.7	2.1	1.8	Good 89.3					No 88.1
							Fair 6.2	11.9	1.8	10.0	88.1	Yes 11.9
							Poor 4.5					

Among the several objections to the use of barbiturates in obstetrics are:

1. The reported peculiar susceptibility to these agents in the case of some individuals (Montgomery,<sup>13 14</sup> Wilcox<sup>15</sup>) with death due to causes such as pulmonary congestion. This observation is not without just criticism. Both clinical and experimental studies (Fitch and Tatum<sup>16</sup>), seem to indicate that death following the administration of short-acting barbiturates is primarily due to direct medullary depression culminating in respiratory arrest and asphyxia. Proper resuscitative measures are available to combat such untoward developments.

2. Increased operative intervention caused by barbiturates through production of uterine inertia. This misconception has been disproved adequately by the external hysterographic studies of Dodeck<sup>17</sup> and further substantiated by the recent studies of parturient human uterine activity by Woodbury, Hamilton, and Torpin.<sup>18</sup> This latter group found that nembutal-scopolamine and seconal-scopolamine were among the drugs found to have no effect on the frequency and duration of uterine activity. The experience in this clinic has demonstrated that at no time was operative intervention indicated because of drug effect. Obstetric abnormalities were the usual indication but, in some private cases, the attending physician terminated labor for his own convenience.

3. Another objection to the barbituric acid derivatives has been the belief that their use increased maternal and fetal morbidity and mortality. This observation does not agree with the studies of Galloway et al.<sup>8</sup> nor with the experience in this clinic. There have been no authenticated reports in the literature of maternal death directly attributable to the use of barbiturates when these agents were used judiciously. It is conceded that these drugs should not be employed: (a) in patients with liver damage, suspected or real; (b) in toxic individuals; (c) in debilitated patients; (d) in patients with any evidence of pulmonary disease; and (e) in asthmatic individuals. (Recent experimental studies in laboratory animals by Burstein and Rovenstine<sup>19</sup> show that certain barbiturates produce and enhance bronchial constriction.) In reference to infant mortality Dille<sup>20</sup> has found in laboratory animals that the placenta offers no barrier to the barbiturates. However, when non-anesthetizing doses of these agents were employed all the newborns breathed spontaneously and reacted to mechanical stimuli. Furthermore, Woodbury, Hamilton and Torpin<sup>18</sup> found nembutal-scopolamine and seconal-scopolamine were among the drugs employed which increased the effective maternal arterial pressure to the placenta. These workers also found that these drugs did inhibit the bearing down action of the maternal abdominal muscles in the second stage of labor but this was only a temporary delay, as



CHART No. 3  
Primipara

Seconal		Symptoms After Delivery					Av. Time Patient Slept	Patient Mentally Clear When Awoke?	Av. Time Before Mentally Clear	Patient Liked Drug	Av. Length of Labor	General Condition of Mother
Total Cases	Cases	Drowsy	Headache	Drunk	Nausea	Vomiting						
34	Yes	Yes	No	No	No	No	5	No	2	Yes	12	Good
Staff	31	31	31	32	32	32	hrs.	24	hrs.	32	hrs.	34
34	No	No	Yes	Yes	Yes	Yes		Yes		No		
Private	3	3	3	2	2	2		10		2		
0	Yes	91.1	No	No	No	No		No		Yes		100.0
	91.1	91.1	94.1	94.1	94.1	94.1		70.5		94.1		
	No	8.9	Yes	Yes	Yes	Yes		Yes		No		
	8.9	8.9	5.9	5.9	5.9	5.9		29.5		5.9		
								Yes				
								85				
Nembutal		Yes	No	No	No	No	8	Yes	6	Yes	12	Good
Total Cases	142	152	123	138	147	147		85		151		154
Staff	No	Yes	Yes	Yes	Yes	Yes		No		No		Fair
40	18	8	37	22	13	13		70		9		6
Private								Part				
120								5				
	Yes	No	No	No	No	No		Yes		Yes		Good
	88.7	95.0	76.8	86.2	91.8	91.8		53.1		94.3		96.2
	No	Yes	Yes	Yes	Yes	Yes		No		No		Fair
	11.3	5.0	23.2	13.8	8.2	8.2		43.7		5.7		3.8
								Part				
								3.2				

it returned later in the second stage and the patients delivered spontaneously.

4. A further objection to the use of barbiturates in labor has been the possibility of precipitating excitement and restlessness. This is probably the only valid objection to the use of these agents, but it need not be a serious one. Excitement following the administration of barbiturates seems to be more frequent with the longer acting ones, such as sodium amylal, than with the short-acting ones. If sufficient amounts of these agents are given, excitement and restlessness are rare.

Excitement due to scopolamine is not uncommon and when it occurs it can be differentiated from that due to the barbiturates by the presence of circumoral pallor, flushed face, and extremely rapid pulse rate. Either excitement can be adequately controlled with apomorphine, grain 1/40, given subcutaneously.<sup>21</sup> It is true that pain per se may initiate or enhance excitement in the presence of either of the above drugs. If this excitement is not severe, and the patient is intelligent, it is frequently possible to allay the individual's fear by talking to her. If this fails, apomorphine can be tried. The ampoule form of scopolamine should be employed as the tablet will deteriorate with time and may produce toxic reactions.

Restlessness on the other hand is more frequent, but usually not alarming. Utilization of side boards on the bed will avoid possible injury to the patient. If the restlessness proves to be severe, morphine sulphate, grain 1/12, will usually be sufficient to allay this condition.

This study was begun in September, 1936, at which time nembutal-scopolamine was employed. The close similarity between nembutal and seconal led to an at-

tempt to treat a small number of patients with the latter agent for the purpose of comparative study.

Three hundred seventy-five cases, private and staff, white and colored, at the University Hospital were studied. Seconal-scopolamine was used in 77 cases (34 primipara and 43 multipara); nembutal-scopolamine in 248 (160 primipara and 138 multipara).

Regardless of the condition of the cervix, seconal or nembutal was given orally as soon as labor definitely began. The initial dose of either barbiturate was 3 to 6 grains, depending on the psychic condition of the patient (the average initial dose was  $4\frac{1}{2}$  grains), and concomitant with this 1/150 grain of scopolamine hydrobromide was given subcutaneously. Whenever the patient demonstrated any evidence of becoming cognizant of her surroundings an additional  $1\frac{1}{2}$  grains of the barbiturate and 1/200 grain of scopolamine were administered. In the average case a total of 6 grains of barbiturate and 1/85 grain of scopolamine was usually adequate to obtain complete amnesia.

In twenty-one primiparas with prolonged labor, it was necessary to give an additional 3 grains of the barbiturate and 1/300 grain of scopolamine to obtain complete amnesia. In four cases (two on nembutal and two on seconal) an initial dose of 12 grains of the drug was given plus 1/75 grain of scopolamine by duplication of physician's orders. The only notable effect in these cases was the prolonged somnolence (24 hours) of the mother following delivery. The length of labor and the condition of the fetus were not unduly affected by this overdose.

As soon as the drugs were given, a wet towel was placed over the patient's eyes and she was sent into the labor room with a nurse in constant attendance. In patients whose restlessness was marked, side boards

CHART No. 4  
Multipara

Secondal		Complete	Amnesia Partial	Failure	Av. Dose Drug	Av. Dose Hyoscine	Av. Time Amnesia Began	Av. Time Amnesia Lasted	Patient Excited	Patient Restless	Co-operation of		Patient Failure
											Complete	Partial	
Total Cases 43 Staff 30 Private 13	Cases	39	2	2	gr. VI	gr. 1/85	15 min.	6-8 hrs.	Yes 8 No 35	Yes 33 No 10	22	16	5
	Percentages	90.6	4.7	4.7					Yes 18.7 No 81.3	Yes 76.7 No 23.3	51.1	37.2	11.7
Nembutal	Cases	125	10	3	gr. VI	gr. 1/85	30 min.	12-16 hrs.	No 101 Yes 37	Yes 82 No 56	60	52	26
	Percentages	90.6	7.3	2.1					No 73.1 Yes 26.9	Yes 54.9 No 45.1	43.4	37.6	19.0

CHART No. 5

Secondal		Spon- taneous	Type of Delivery				Podalic Version	Condition of Baby	Cyanotic Aponeic Baby	Still Born	Cyanotic Breathing Baby	Baby Breathed Im'diately	Baby Resusci- tated
			Low Forceps	Mid Forceps	High Forceps								
Total Cases 43 Staff 30 Private 13	Cases	43	0	0	0	0		Good 38 Fair 2 Poor 2 Died 1	2	2	6	40	No 41 Yes 2
	Percentages	100	0	0	0	0		Good 88.5 Fair 4.6 Poor 4.6 Died 2.3	4.6	4.6	13.9	95.4	No 95.4 Yes 4.6
Nembutal	Cases	129	P-5 S-0	P-2 S-0		P-1 S-1		Good 127 Fair 9 Poor 1 Died 1	16	3	10	122	No 122 Yes 16
	Percentages	93.6	3.6	1.4	0	1.4		Good 92.0 Fair 6.4 Poor .8 Died .8	9.3	2.1	7.2	90.7	No 90.7 Yes 9.3

were placed on the bed until the individual was under control.

Patients were classified as follows: Complete amnesia—when absolutely nothing was remembered of labor or delivery; partial amnesia—when a few isolated incidents were recalled; failure—when a considerable portion of labor or delivery was remembered.

The only supplementary agents used were: ether by the open drop method when operative interference became necessary; morphine sulphate, grain 1/12, when needed to control extreme restlessness; and apomorphine, grain 1/40, to combat extreme excitement or scopolamine reaction.

Seven cases of scopolamine reaction were noted. They were characterized by a rapid pulse (150 to 160 per minute), flushed face, circumoral pallor, marked restlessness and excitability. This was easily controlled by the subcutaneous administration of 1/40 grain of apomorphine; the above symptoms disappeared in 8 to 10 minutes. Except for these cases no ill effects were noted in the mothers. (Chart 7.)

There were four cases of marked restlessness and excitability without any of the above peripheral circulatory phenomena. All of these cases had received nembutal. Subcutaneous administration of morphine sulphate, grain 1/12, controlled these symptoms, and

all delivered spontaneously. The babies breathed at birth. (Chart 8.)

The primipara group under secondal (34 patients) complete amnesia was obtained in (30 cases) or 88.2 per cent (Chart 1.) In this same group 82.4 per cent (28 patients) delivered spontaneously; the remainder were subjected to operative intervention for obstetric abnormalities (one woman because of premature separation of the placenta, and two women, because they became exhausted during the process of rotation from an occiput posterior to an anterior position), were delivered by low forceps. Three patients were delivered by mid-forceps because of deep transverse arrest). Of the infants in this group, 94.1 per cent (32 babies) breathed immediately at birth; the remainder, 5.9 per cent (2 babies) required resuscitative measures. The latter were all in the operative series. One stillborn infant was diagnosed as such before administration of the drugs, and delivered spontaneously. (Chart 2.)

Of the 160 primiparas in whom nembutal-scopolamine was used, 148 (92.5 per cent) experienced complete amnesia. (Chart 1.) In this group 72.6 per cent (103 patients) delivered spontaneously; the remainder were subjected to operative delivery because of obstetric abnormalities (7 because of prolonged labor and exhaustion of the mother, 6 because of fetal dis-

CHART No. 6  
*Multipara*

		Symptoms After Delivery					Av. Time Patient Slept	Patient Mentally Clear When Awake?	Av. Time Before Mentally Clear	Patient Liked Drug	Av. Length of Labor	General Condition of Mother
		Drowsy	Headache	Drunk	Nausea	Vomiting						
<i>Seconal</i>	Total Cases							No				
	43	Yes	Yes	No	No	No		20				
	Staff	2	7	28	33	33	5	Yes	2-4	Yes	5	Good
	30	No	No	Yes	Yes	Yes	hrs.	15	hrs.	41	hrs.	43
<i>Private</i>	13	41	36	15	10	10		Part		No		
								8		2		
	Percentages							No				
		Yes	Yes	No	No	No		46.5		Yes		
<i>Nembutal</i>	Total Cases							Yes				
	138	4.6	16.3	65.1	76.7	76.7	No	34.9		95.4		
	Staff	No	No	Yes	Yes	Yes	46.5	Part		No		100.0
	44	95.4	83.7	34.9	23.3	23.3		18.6		4.6		
<i>Private</i>	94							No				
		Yes	No	No	No	No		88		Yes	5	Good
	125	132	101	124	127	8	hrs.	42	7-8	131	hrs.	135
	138	No	Yes	Yes	Yes	Yes		Part		No		Fair
<i>Percentages</i>	13							8		7		3
								No				
		Yes	No	No	No	No		63.7		Yes		Good
		90.7	95.6	73.1	82.6	92.0		Yes		94.9		97.8
<i>Percentages</i>		No	Yes	Yes	Yes	Yes		Part		No		Fair
								5.9		5.1		2.2
		9.3	4.4	26.9	17.4	8.0						

stress, (5 of these being due to cord about neck and one to a knot in the cord), one due to premature separation of the placenta, and five as a result of rotation of an occiput posterior with subsequent exhaustion were delivered by low forceps. Nine that had transverse arrest, five that had fetal distress (2 with cord about neck—too short cord), and two that had uterine inertia were delivered by mid-forceps. Three cases were delivered by high forceps because of persistent occiput posterior and one because of fetal distress. Three cases were delivered by podalic version; one was an unengaged head, too high for forceps with signs of fetal distress; two were cases of prolapsed cord with unengaged head. (Chart 2.) Of the infants, 141 (88.1 per cent) breathed immediately at birth; 19 (11.9 per cent) required resuscitative measures. Of the latter 18 occurred in the operative series and one in a normal spontaneous delivery. Three stillbirths occurred, two following operative deliveries, and one, diagnosed as such before drugs were given and had a spontaneous delivery. (Chart 2.)

Of the 43 multiparas in whom seconal-scopolamine was administered, 39 (90.6 per cent) experienced complete amnesia. (Chart 4.) This group contained 100 per cent spontaneous deliveries. (Chart 5.) Forty babies (95.4 per cent) breathed immediately at birth; two (4.6 per cent) required resuscitative measures. One premature baby died. There were two still-born infants, one a breech in which the cord was compressed too long by the after coming head and the other diagnosed a stillborn before the drugs were given. (Chart 5.)

Of the 138 multipara in whom nembutal-scopolamine was employed, 125 patients (90.6 per cent) reached complete amnesia. (Chart 4.) In this group 129 patients (93.3 per cent) delivered spontaneously. The remainder (9 patients) had operative intervention. (Four cases were delivered by low forceps be-

cause of fetal distress and one because of premature separation of the placenta. One was delivered by mid-forceps because of fetal distress and transverse arrest, and one because of prolonged labor. Two were delivered by podalic version, one a second baby of a twin delivery was in a transverse position, and one was a brow presentation.) One hundred thirty-five infants breathed immediately at birth; the remainder (16 infants, or 8.3 per cent) required resuscitative measures. There were three stillborn deliveries in this series, one a brow, one a premature weighing under 5 pounds, and one a spontaneous delivery. The cause of the latter's death could not be determined as permission for a post mortem was refused. (Chart 5.)

In this study the patients under the effect of these drugs usually rested quietly or slept during the interval between pains. They became restless, turned and rolled with their pains.

The third stage was normal. There was no interference noted in uterine activity, no retained placenta, and no severe cases of post-partum hemorrhage.

Clinically no significant variation was noted in the maternal pulse, respiration, and blood pressure.

There was one fetal death in the series. The role which the drugs may have played in this case is open to conjecture.

During the puerperium the processes of lactation and involution followed their usual normal course.

Nembutal was found to have a more lasting effect than seconal. The latter began to



CHART No. 7  
*Hyoscine Reaction = 1.86%*

Case No.	Pulse Before Drug	Pulse 1-2 Hours After Drug	Flushed Face	Circumoral Pallor	Restless	Apomorphine Gr. 1/40	Pulse 1 hr. Later	Restless	Flushed Face	Circumoral Pallor
1*	78	156	x	x	x	x	88	0	0	0
2*	88	160	x	x	x	x	94	0	0	0
3*	82	154	x	x	x	x	90	0	0	0
4**	86	164	x	x	x	x	89	0	0	0
5**	90	155	x	x	x	x	92	0	0	0
6**	74	150	x	x	x	x	82	0	0	0
7***	84	160	x	x	x	x	88	0	0	0

\*Nembutal Primipara.  
 \*\*Nembutal Multipara.  
 \*\*\*Second Primipara.  
 x Positive.

 CHART No. 8  
*Restlessness = 1.06%*

Case No.	Pulse Before Drug	Pulse 1 hr. After Drug	Face Flushed	Circumoral Pallor	Very Restless	Excited	Morphine Sulphate 1 Gr. 1/12	1 hr. Later Restless	1 hr. Later Excited	Pulse 1 hr. After Drug
1	78	90	0	0	x	x	x	0	0	80
2	88	98	0	0	x	x	x	0	0	88
3	88	100	0	0	x	x	x	0	0	86
4	82	92	0	0	x	x	x	0	0	82

x Positive

act in about 15 minutes as compared to 30 minutes for nembutal. The effects of nembutal persisted four to eight hours longer than seconal. This latter superficial observation might lead one to believe that seconal is the drug of preference for multipara, and nembutal for primipara; however, this series of cases is too small to draw any definite conclusions in this regard.

#### Summary

The use of the barbituric acid derivatives in obstetric practice is not new. Investigators have reported varying degrees of success with these agents. The best results have been obtained with scopolamine when combined with nembutal. It is emphasized that this combination of drugs is only capable of producing hypnosis with amnesia.

A review of 375 cases is presented (298 cases in which nembutal-scopolamine was employed and 77 cases in which seconal-scopolamine was used).

In this series of cases there was a high incidence of spontaneous deliveries.

Supplementary anesthesia was employed only when operative intervention was indicated. The frequency of the latter was not increased by the use of the above barbiturates, nor was there any interference in uterine activity either during or following labor. The expulsive efforts of the abdominal muscles were markedly diminished, but this was only a temporary delay.

There were no maternal deaths in this study attributable to the use of these drugs. The cause of one fetal death is questionable.

The possibility of seconal being of more distinct value than nembutal in multipara is worthy of further investigation.

It is realized that this series is too small to draw any definite comparisons between seconal and nembutal.

This study was designed primarily to investigate the efficiency of the above agents, and should not be misconstrued to recommend or advocate their use.

#### Conclusions

Judicious employment in obstetric practice of either nembutal or seconal in combination with scopolamine is capable of producing a high percentage of amnesia in selected cases.

The routine use of any drug or combination of drugs deserves condemnation. Each patient should be evaluated, and the agent and technic be chosen accordingly.

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#### DISCUSSION ON PAPER OF DRS. FRECH, VOLPITTO AND TORPIN

*Dr. William H. Myers* (Savannah): I am not qualified to speak authoritatively on the administration of the agents Dr. Frech recommended, but I have had some experience with scopolamine and morphine, and there is a wonderful field for development of these agencies. I had some unfortunate experiences and have more or less abandoned the use of scopolamine. I have recently been using other drugs. While I have not a large series of cases, nor have I accurate data, still I think that the doctor made a contribution to obstetrics in this section of the country, and I hope he will continue his excellent work.

*Dr. A. J. Kilpatrick* (Augusta): It is a habit of mine to commend young men who have done good work in our University Hospital and I am glad to endorse Dr. Frech. I also would like to commend Dr. Frech for the character of paper he presented. He did not laud this form of amnesia over other forms. Methods employed in the Columbia, Charleston, Atlanta, Savannah and Macon hospitals doubtless are just as effective as this one. He just gave his observations on this one form.

The woman swallows three capsules, gets one to three punctures and that is all there is to it. Nothing could be simpler.

One remark I would like to make is: I wonder if the men who do hospital obstetrics exclusively, using this or any form of amnesia, realize the wonderful reduction of maternal and fetal mortality and morbidity as the result of this innovation in obstetrical practice. Cerebral hemorrhage in the newborn is markedly reduced. I also wonder if we stop to realize the exact reason for these improvements and that is, it gives the obstetrician the opportunity to think, the family being assured the patient is experiencing no pain is satisfied to leave matters in the physician's hands and he is,

therefore, able to separate the necessary from the unnecessary.

*Dr. J. E. Johnson, Jr.*, (Elberton): I am one of those country doctors who can't always get rid of the family in the home, and I would like to say a word in regard to this sort of treatment. I have employed it for the last two years and I find it fine in the hospital, but when you are in the home you can't use it with as good results because of the unfortunate side issue of excitability of the patient. When the patient gets excited the family gets excited and there is nothing to do about it except to bring the patient to the hospital, which in some cases you can't do.

I have had excellent results in the hospital with this method. I haven't employed quite as large doses of nembutal as the doctor has. In most cases I give two of the capsules to start with and 1/150 of scopolamine. I feel that it gives excellent relaxation, but there must be somebody at the bedside watching the patient all the time, because if there isn't, the patient is liable to fall off the bed.

I haven't had any ill effects to the mother or the baby from the use of this.

*Dr. H. C. Frech, Jr.* (Savannah): In reference to Dr. Johnston's discussion about using these drugs in the home, I would like to say that perhaps his dose of three grains is too small. I have similarly experienced excitement with this small dosage and have found that by adding another one and one-half to three grains of either of these drugs that the excitement is eliminated.

I would not advise the use of scopolamine in the home delivery. As mentioned in the paper, excitement can be due to two things: (1) barbiturates, and (2) hyoscine. In either event this can be controlled by the administration of one-sixth grain of morphine sulphate if the barbiturates are the contributing factor, or by the administration of apomorphine, grain one-sulphate if the barbiturates are the contributing factor.

#### VOCATIONAL-PLACEMENT SERVICE FOR PUBLIC HEALTH NURSES

The Nursing Bureau of Manhattan and Bronx, Inc., New York, New York, opens a vocational-placement service to public health nurses and the field on May 1, 1939. The service has the tentative approval of the Committee on Vocational Counseling of NOPHN. Full approval is dependent upon analysis of the service in action.

Letha Allen, R.N., formerly, Director of the Public Health Nursing Organization of East Chester, Tuckahoe, New York, has been appointed Secretary of Public Health Placements. The Nursing Bureau of Manhattan and Bronx, Inc., has been conducting a placement-vocational service for private practice and institutional nurses since 1933. The service to public health nurses and nursing organizations is now added because a need for it in New York City was created when the Public Health Nursing Service rendered by Joint Vocational Service in New York City was transferred last July to the Nurse Placement Service in Chicago.

All level positions will be handled, the service will cover the entire United States.

## USE OF CEVITAMIC AND NICOTINIC ACID IN EDEMA OF NEPHROSIS\*

### *Preliminary Report of Cases*

JOHN W. DANIEL, M.D.  
*Savannah*

Anasarca is the most distressing condition arising in nephrosis and chronic nephritis. Innumerable remedies to increase the output of urine have been tried but with only temporary benefit to the sufferer. After many years of study, seeking the cause of the metabolic upset whereby the tissues retain water and salts, thus not presenting them to the kidneys for elimination, I concluded there must be a deficiency of some essential material in the economy which produces a failure of all tissues to function normally. This is not the proper place to take up a discussion of physiology and pathology so I will confine this paper to reporting findings, laboratory and physical, with results of treatment on the basis of a vitamin deficiency.

#### *Report of Cases*

*Case 1.* Mrs. B., age 59, married, one living child, came in for consultation July 9, 1938, complaining of swelling of feet, legs and abdomen, morning headaches, no appetite, nausea, very scant urine, an aversion to food.

*Past History:* Rather indefinite other than about 20 or more years ago developed heavy albuminuria during a period of pregnancy. She did not recall whether or not blood pressure had been taken, blood chemistry was not made, she miscarried at about 6 months. Since that time has not been in good health but has had no special complaint. Urine was examined at long intervals each time showing albumin.

*Family History:* No bearing on case.

*Physical:* Massive edema of legs, feet and abdominal wall with some involvement of face and arms. Weight had increased from normal, 98 lbs. to 115 lbs. Blood pressure 130/80, pulse rate 88, regular, arteries soft. Heart: valves and borders normal, rate at apex 88, rhythm regular, sounds distant, hardly audible, impulse not perceptible. This may be partly accounted for by the thickened edematous chest wall. No focal infection could be found.

*Laboratory Findings:* See table 1.

The Patient returned home in neighboring town with the following instructions: High protein, salt-free diet, containing at least 150 Gm. protein daily, fluid intake limited to 1,000 cc. in 24 hours. Autolyzed liver, 3 teaspoonfuls daily, dilute hydrochloric acid, 20 drops, essence pepsin, 1 drachm, after meals.

On July 29 she returned complaining of nausea, anorexia, growing weakness. Entered hospital. Plasma proteins had improved somewhat. (See table.) The high protein, salt-free diet was continued, fluid intake limited to 1,000 cc., later reduced to 500 cc. Medication consisted of cevitic acid, 6 tablets, 25 mg. each, daily; 1.5 gr. digitalis leaves 3 times daily; potassium salts; intravenous glucose, 50 cc. 50 per cent and; concentrated liver 2 cc. intramuscularly daily.

August 23. No benefit from treatment, weight had increased from 115 lbs. when she entered the hospital to 133 lbs., the output of urine 188 cc. daily, albumin had increased to 5 Gm. per liter, plasma proteins had dropped. (See table.) Patient was becoming desperate, more toxic, refusing to eat. At this time diet and all medication was discontinued, she was allowed to eat anything desired, take all the fluids and fruit juices she wanted. I then gave 20 mg. nicotinic acid 3 times daily with the most surprising results. After the first tablet she lost 4 lbs. in weight and the urine increased to 700 cc. in 12 hours. I based the patient's progress on the loss of weight rather than on the quantity of urine. On September 1 patient was dismissed from hospital weighing 111 lbs. The nicotinic acid was continued until October 4, when her weight was 100 lbs. She was then given cevitic acid, 25 mg. 3 times daily, also 1/4 gr. thyroid 3 times daily because of the increase of cholesterol. High protein, salt-free diet was continued. October 5 she ate salt on food, gained 3 lbs., left off salt and lost 2.5 lbs. in 24 hours.

November 8 patient returned for check up very much improved, feeling fine. (See table.) At this time I allowed salt in diet due to disgust for protein without salt. She continued to take cevitic acid, 75 mg. daily. After two weeks of salt she gained only one pound. Patient was then instructed to take nicotinic acid for 7 days every third week, oftener if any increase of weight.

*Case 2.* Mrs. C., age 36, came in complaining of swelling of entire body and extremities, headaches, fatigue, pains in legs, voiding small quantity of urine, full feeling in epigastrium after eating.

*Family History:* Father and mother, age 75, have hypertension, mother paralyzed, two brothers died of cerebral hemorrhage.

*Past History:* She had had malaria several times, gallbladder removed in 1932, no history of stones or pus. At intervals of several months she had exhibited edema of legs which has existed since 1936. On Oct. 2, 1937, she came in complaining of edema and headaches. Heart normal, no rales at base of lungs, no fluid in chest or abdomen, a generalized anasarca, normal plasma proteins. (See table.) I prescribed pulverized liver substance, 3 teaspoonfuls daily, capsules containing vitamins A, B, C, D, one 3 times daily. October 19 she returned feeling much better, edema had entirely subsided, feeling of fatigue gone and she had lost 7.5 lbs. in weight. Red cells had increased 500,000, hemoglobin 10 per cent. Treatment discontinued but the patient was advised to continue high protein diet. December 11 she returned complaining

\*Read before the Georgia Medical Society, Savannah, October, 1938.



TABLE 1  
Data on Case 1

Date	Urine				Alb.-Glob Ratio	Osmotic Pressure	Blood Chemistry			RBC.	WBC	Hb	Wt.
	Alb. Gm. per L.	Chl. Gm. per L.	Casts	PSP			Mg.	NBN Mg.	Cholestrol. Mg.				
1938					TP 3.08 A 2.08 G								
7/9	4.5	3.4	0	65	1.0	12.75	465	33	230	4.5	5,000	83	115
					TP 7.43 A 3.63 G								
7/29 4.X.	4.5	3.5			3.79	25.0	474	30	230 <sup>1</sup>	5.1		90	115
					TP 4.43 A 1.43 G								
8/23	5	3.0			3	13.1	475	46	150	4.6	5,000	85	133
					TP 4.43 A 1.45 G								
8/30	4	9.2			3	13.1	565	32	150 <sup>2</sup>				
					TP 4.12 A 1.87 G								
9/15	5	9			2.25	13.2	515	25	400	4.6	5,000	85	111
					TP 3.28 A 1.15 G								
10/5	2	8			2.13	10	530	30	533 <sup>3</sup>				100
					TP 7.53 A 3.71 G								
11/8	0.5	6			3.82	25.8	535	30	400	4.8	5,000	85	100

1. Gave thyroid 0.75 gr. daily.

2. Discontinued thyroid as cholesterol normal.

3. Gave thyroid as cholesterol had increased.

4. Entered hospital.

of gaining weight and edema of extremities. Red blood count and hemoglobin unchanged. She stated that each time she took the vitamin capsules the edema subsided and she felt much better. I did not see patient again for several months.

Oct. 11, 1938, she returned complaining of swelling, gaining weight, scanty urine, headache, no appetite, fatigue. Heart normal. Blood pressure variable as patient was very much alarmed about her condition, very emotional. Systolic pressure ranged from 180 to 135.

Laboratory Findings: (See table.)

Treatment: High protein, salt-free diet, fluid intake limited to 1,000 cc. in 24 hrs. Medication: Dilute hydrochloric acid and pepsin, as the patient showed achlohydria. Tablets of nicotinic acid, 20 mg. each, 3 times daily. The results were very disappointing as she

continued to gain in weight, 1.5 to 2 lbs. daily, with an output of an average of 480 cc. urine in 24 hrs. I then began to check up as to the difference between the two cases and found that Case 1 had been given 100 cevitic acid tablets, 25 mg. each, before giving nicotinic acid. I then decided that it was necessary to give both of the vitamins as neither cevitic acid nor nicotinic acid alone had produced diuresis. On adding cevitic acid, 50 mg. 3 times daily, the urine volume increased from 500 cc. in 24 hrs. to 1,000 cc. in 12 hrs. Appetite increased and she stated she could eat three heavy meals daily, a fourth at midnight and still be hungry. The edema rapidly disappeared, a feeling of well-being increased daily, weight dropped from 126.5 to 105 lbs. on November 9, when she was dismissed. Blood pressure, 125/75, red cells 4,176,000, hemoglobin 75 per cent, urine negative.

TABLE 2  
Data on Case 2

Date	Alb Gm per L.	Urine		Alb-Glob Ratio	Osmotic Pressure	Chl Mg	Blood Chemistry			RBC	WBC	Hb	Wt.
		Casts	PSP				* NPN Mg	Cholesterol Mg					
1937				TP 6.05 A 4.17 G									
10/2	trace	0	70	1.88	25.3	520	30	200	3,550,000	5,000	60	110	
				TP 3.09 A 1.93 G									
1938 10/11	trace	0	75	1.16	12.2	490	26	400	3,600,000	5,500	65	125	
				TP 3.1 A 2.41 G									
10/25	trace	0		0.69	14.3	550	28	230	3,952,000	5,000	75	126.5	
				TP 6.01 A 4.3 G									
11/3	0			1.7	26.1	500	25	267	4,176,000	5,000	80	105	

*Discussion*

This report is based upon two cases of nephrosis with the following positive features: Normal blood chemistry, with the exception of cholesterol, absence of blood cells in urine, loss of proteins in urine, pronounced edema and low plasma proteins. Both patients, after a period of time, showed diminution of proteinuria and an increase of plasma proteins.

The outcome of the treatment seems to be the result of supplying a vitamin sufficiency with cevitic acid and nicotinic acids. Of great importance was the ability of these patients to convert exogenous protein into endogenous protein for utilization in the tissue cells. In both cases the phenosulphonephthalein test showed sufficient kidney capacity to eliminate water and salt if presented, but due to the breakdown of normal metabolic processes, the sodium chloride and water were retained in the tissues. When the vitamins were administered the tissues released the sodium chloride and water which were then presented to the kidneys for elimination. The pronounced diuresis with loss of weight and lessening of albuminuria so quickly following the administration of vitamins, although there had been no corresponding improvement in the plasma proteins or osmotic pressure lead me to the

conclusion that the edema is purely a metabolic breakdown due to vitamin deficiency.

The reason for giving cevitic acid was its physiologic action upon the endothelial cells of the arterial system. I hoped by this means to restore the cells to normal and thus stop leakage through glomeruli. It seemed to have this effect as the albumin gradually decreased. The nicotinic acid was given to bring about tissue cell changes in the skin which the physiologists have shown retains a greater percentage of sodium chloride than other organs. The result of the combination of the two vitamins was entirely satisfactory in releasing the salt and water and stopping loss of proteins in urine.

In applying this treatment of edema in these cases the prognosis was based upon the laboratory and physical findings: Normal non-protein nitrogen, normal kidney function test, the absence of red blood cells in urine, normal blood pressure and normal heart.

*Conclusion*

The rapid response of these patients following the administration of vitamins leads me to believe that the disappearance of albuminuria and the increase of plasma proteins is not a period of remission which sometimes occurs in nephrosis but is brought about by

the administration of vitamins. Is it not possible that the kidney lesion may have as a foundation a vitamin shortage instead of being entirely the result of infection?

These cases will be kept under observation, and, with the addition of others, results will be reported later.

## ANGINA PECTORIS AND THE CORONARY ARTERIES\*

HAROLD C. ATKINSON, M.D.  
*Macon*

From the standpoint of derivation, angina pectoris does not mean pain in the heart, but literally a choking in the chest. The term is believed to have been first used by Wm. Heberden before the Royal College of Physicians in London, in 1768.

In Heberden's book, "Commentaries on the History and Cure of Diseases," translated from Latin to English by his son, angina pectoris is one of the conditions discussed in a chapter headed "Pectoris Dolor."

"In the course of this chapter Heberden wrote, 'But there is a disorder of the breast marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it, and not extremely rare, which deserves to be mentioned more at length. The seat of it, and sense of strangling and anxiety with which it is attended, may make it not improperly be called angina pectoris.'

"The pulse is, at least sometimes, not disturbed by this pain, as I have had opportunities of observing by feeling the pulse during the paroxysm. Males are most liable to this disease, especially such as have past their fiftieth year. . . . I have seen nearly a hundred people under this disorder, of which number there have been three women. . . . (The pain may be brought on not only by exertion, excitement, or meals, but also) 'by swallowing, coughing, going to stool or speaking.'

"The angina pectoris, as far as I have been able to investigate, belongs to the class of spasmodic, not of inflammatory, complaints. For

"In the first place, the access and the recess of the fit is sudden.

"Secondly, there are long periods of perfect health.

"Thirdly, wine and spirituous liquors and opium afford considerable relief.

"Fourthly, it is increased by 'disturbance' of the mind.

"Fifthly, it continues many years without any injury to the health.

"Sixthly, in the beginning it is not brought on by riding on horseback, or in a carriage, as is usual in disease arising from scirrhus, or inflammation.

"Seventhly, during the fit the pulse is not quickened.

"Lastly, its attacks are often after the first sleep, which is a circumstance common to many spasmodic disorders.

"On opening the body of one, who died suddenly of this disease, a very skillful anatomist could discover no fault in the heart, in the valves, in the arteries, or neighboring veins, excepting some small rudiments of ossification in the aorta. The brain was likewise everywhere sound.

"With respect to the treatment of this complaint I have little or nothing to advance, nor indeed, is it to be expected we should have made much progress in the care of a disease which has hitherto hardly had a place or a name in medical books. Quiet, and warmth, and spirituous liquors help to restore patients who are nearly exhausted and to dispel the effects of a fit when it does not soon go off. Opium taken at bedtime will prevent the attacks at night."

In its present status angina pectoris is a clinical syndrome occupying a rather indefinitely demarcated middle ground between two conditions whose importance has not been recognized until the present century. These conditions are *coronary occlusion* on the one hand and *cardiac neurosis* on the other.

The sensation experienced in an attack of angina pectoris is usually referred to as a pain, but is frequently described as not a true pain but a vice-like constriction with a sense of choking and severe discomfort and sometimes the sensation of impending death.

Usually the discomfort starts and is of maximum intensity substernally. There may be no radiation of the pain but in most cases there is radiation upward, most frequently into the left arm or both arms. Less common is radiation to the neck and jaws and rarest is radiation downward to the epigastrium or hypochondrium. Marked perspiration and evidence of shock are usual.

The attack may be very brief or last 10 or 15 minutes. A duration of 3 or 4 minutes is the rule.

There seems to be at the present time almost unanimity of opinion that the clinical symptoms described above are the result of a temporary ischemia of some portion of the cardiac muscle and the fact is that any condition which will produce such an ischemia will cause these symptoms.

A complete occlusion of a coronary artery by a thrombus produces pain which differs in character none at all from that described

\*Read before the Macon Medical Society of Bibb County, Macon, March 1, 1938.



above, but it does differ in duration and permanence; and in cases of coronary thrombosis fairly characteristic pathologic and electrocardiographic changes can be demonstrated.

Severe anemia definitely predisposes to anginal attacks. Luetic involvement of the aortic orifices of the coronary vessels has been demonstrated in some cases. However, the most frequently demonstrable physical factor underlying anginal attacks is sclerosis of the coronary arteries.

Some of the facts which make impossible a satisfactory explanation of angina pectoris purely on an anatomic basis are:

1. In cases having recurring attacks of anginal pain, the heart shows varying degrees of pathologic change, from a great deal to none at all.

2. A great many cases have been demonstrated in which the most marked degree of sclerosis of the coronary vessels existed with no history of anginal attacks.

3. Young people with soft arteries but over-wrought nervous systems have attacks of anginal discomfort differing in no point from those described above.

4. A patient may be having frequent severe anginal attacks, but if there is cardiac decompensation and the heart dilates, the anginal attacks cease, only to recur when compensation is again improved. A loss of tone of the coronary vessel under these circumstances and its inability to contract best explains this phenomenon.

5. In any individual susceptible to recurrent anginal attacks, these attacks are brought on by factors which may be either physical, such as exertion, or psychic, such as fear, anger, etc. It is well known that a man in an executive or professional position may have numerous attacks while at his desk under the strain of his work and few, or none, while on a vacation even though he be more physically active.

6. Certain races, notably the Chinese and Hindu, are remarkably free from anginal attacks. Houston states that although the Chinese suffer from every other known form of heart disease, neither he nor his predecessor in a Chinese University ever saw angina in China, nor did he ever hear of a case in that race.

Since these facts render the symptomatology of angina pectoris apparently unexplain-

able on an anatomic basis alone, it is evident that a functional factor must be present and nothing, in my opinion, explains all of the known facts as well as Houston's concept of "spasmogenic aptitude." This term represents a tendency on the part of the individual to a neurogenic spasm or constriction of smooth muscle usually resulting from an over-labile autonomic nervous system. Any of the involuntary smooth muscles in the body may be predominantly involved. If it be the muscles of the peripheral and renal arterioles, hypertension results. If it be the muscles of the gastro-intestinal tract, we get the various type of nervous indigestion with which we are familiar. If this spasm involve predominantly the coronary arteries, the result is a temporary ischemia of the heart muscle producing the anginal syndrome.

We may pass then by insensible gradation from the patient in whom the anatomic obstructive factor is everything; that is, the case of coronary occlusion, to the patient in whom the obstructive factor is absent and the spasmogenic factor is everything, the effort syndrome or cardiac neurosis.

The problem of the clinician in any given case is to determine in as far as possible the relative parts which those two factors are playing. The anatomic factor, usually sclerosis, is of relatively grave significance and most difficult to influence by therapy. The spasmogenic factor is subject to marked improvement if properly handled.

It follows then, that while angina pectoris is a convenient term for a definite clinical syndrome, it is not a disease in itself. It is interesting to note in this connection that White in his latest edition of "Heart Disease" heads Chapter 31, "Coronary Insufficiency, Angina Pectoris" and, although the page headings for the remainder of the chapter are Angina Pectoris, he makes the recommendation in the appendix that Anginal Syndrome be no longer retained in the accepted classification of heart disease, but have substituted for it Coronary Insufficiency (with angina pectoris or electrocardiographic evidence).

An effort to find a clear cut differentiation of angina pectoris from functional pain written by those who claim there is such a differentiation was unsuccessful. Illustrative of what was found instead is the following quotation from an otherwise excellent article:

"We shall deal in this paper with pain in the region of the heart that is not angina pectoris. The difference between pain or distress in the region of the heart and angina pectoris will not be discussed, because descriptions of angina pectoris can be found in many textbooks and a repetition is not needed."

In conclusion I will reiterate in summary that, in my opinion, angina pectoris is not a distinct disease in itself but a clinical syndrome caused by intermittent ischemia of the heart muscle. Factors producing this ischemia are both anatomic and functional, the two being present in different degrees in different cases and the relative part played by each in a given case determining the prognosis in that case. Since the term angina pectoris is rather indefinite and has come to carry such dreaded significance, it would probably be wise if the terms (1) coronary insufficiency and (2) coronary spasm could be substituted, and some such substitution may eventually be made.

#### THE FACTS AND SIGNIFICANCE OF THE TUBERCULIN TEST\*

In the February issue of the *Journal*, "The Facts and Significance of the Tuberculin Test," the paragraph concerning positive reactors should read as follows: "Except in terminal or overwhelming disease, and shortly following some acute diseases such as measles, a positive tuberculin test is almost absolute proof of the existence of a tuberculous infection. The conclusion to be drawn, therefore, is that every positive reactor is a potential possible victim of tuberculosis. In the differential diagnosis of a case, a negative tuberculin reaction aids greatly in ruling out tuberculosis."

CHAMP H. HOLMES, M.D.

\*Correction for editorial which appeared on page 67 in the February, 1939 issue of *The Journal of the Medical Association of Georgia*.

#### "DEPRESSION OR NO DEPRESSION"

Since 1930, month after month, a unique series of education-to-the-public advertisements have appeared on the first page of *Hygeia*. The sponsor's name, Mead Johnson & Company, has to be looked for with a magnifying glass, and appears only for copyright purposes. Not a product is ballyhooed. Instead, appears good, clean, convincing reasons, with choice illustrations, why mothers should seek pediatric advice from their physician.

The American Association for the Study of Goiter again offers the Van Meter Prize Award of \$300 and two honorable mentions for the best essays in original work related to the thyroid gland.

#### PNEUMOPERITONEUM\*

##### *An Adjunct to the Treatment of Pulmonary Tuberculosis*

##### *Report of 19 Cases*

A. WORTH HOBBY, M.D.

Atlanta

Pneumoperitoneum, as such, is not a novelty. Since 1902 it has been used frequently for diagnostic purposes and since about 1917 it has been utilized in the treatment of intestinal and peritoneal tuberculosis. It is a form of collapse therapy applicable in selected cases of pulmonary tuberculosis, lung abscess and extensive bronchiectasis. The present discussion, based on a review of the literature and a series of 19 cases now receiving pneumoperitoneum, will be confined to its use in pulmonary tuberculosis.

##### *Literature*

In the first report on this subject, published in the *American Journal of the Medical Sciences* in 1931, Dr. Andrew S. Banyai<sup>1</sup> said:

"It is conceivable that the elevation of the diaphragm, attained by pneumoperitoneum treatment, may exert a favorable influence upon the healing of the pulmonary process by limiting the excursions of the diaphragm and by decreasing the intrapleural negative pressure, which, in turn, will increase the blood supply of the pulmonary tissue."

After several years' experience with the method Dr. Banyai stated:

"The two most important immediate results of artificial pneumoperitoneum are: (1) the drainage of inflammatory products from cavities and from the bronchial tract (increased expectoration without increased cough); and (2) a relative functional rest of the diseased lung."

He was of the opinion that these two factors with the accompanying passive congestion and lymph stasis subsequent to pulmonary relaxation contribute substantially to the elimination of the tuberculous process both by absorption and by fibrous tissue formation.<sup>2</sup>

Not until 1934 does there occur any further mention of this subject in the literature. Then Dr. Banyai, in the *American Review of Tuberculosis*, advocated combining pneumoperitoneum with phrenic nerve block.<sup>3</sup> This combination remains the most effective

\*Read before the Fulton County Medical Society, Atlanta, January 20, 1938.

manner in which this method of collapse can be used.

In 1937 a study of a series of cases so treated by Drs. H. G. Trimble and B. H. Waldrup appeared in the Transactions of the Thirty-third Annual Meeting of the National Tuberculosis Association.<sup>4</sup> This new form of therapy is now being used by these men in California, in Chicago by Dr. Minas Joannides, in Wawatosa, Wisconsin, by Dr. Banyai and here in Atlanta.

### *Indications for Artificial Pneumoperitoneum*

#### *Indications for Artificial Pneumoperitoneum*

The indications for artificial pneumoperitoneum in the treatment of pulmonary tuberculosis are as follows:

"1. If artificial pneumothorax is indicated but cannot be established. In unilateral cases better mechanical results can be obtained by the combination of this method with phrenic nerve block.

"2. Severe pulmonary hemorrhage that cannot be controlled by any other means.

"3. Following pregnancy in cases of pulmonary tuberculosis in which pneumothorax cannot be induced

"4. If after pneumothorax has been discontinued and the tuberculous process becomes reactivated but pneumothorax cannot be reestablished.

"5. In addition to phrenic nerve block in which the elevation of the diaphragm is insufficient.

"6. In addition to mechanically satisfactory phrenic nerve block when the sputum remains persistently positive.

"7. If the tuberculous lesion is too extensive for a bilateral artificial pneumothorax.

"8. Bilateral pulmonary tuberculosis complicated by intestinal or peritoneal tuberculous lesions.

"9. Pulmonary tuberculosis complicated by basal bronchiectasis.

"10. Marked basal emphysema complicating pulmonary tuberculosis.

"11. In addition to artificial pneumothorax in which the relaxation of the basal portion of the pneumothorax lung is desirable, but cannot be accomplished by pneumothorax alone, because of adhesions.

"12. Allergic bronchial asthma complicating pulmonary tuberculosis."<sup>2</sup>

From the foregoing it is apparent that this type of collapse therapy is especially adapted to those cases having extensive bilateral involvement or in which pneumoperitoneum is used to supplement some other method or methods of collapse. As yet this method does not compete with or supplant more orthodox means of inducing collapse—provided satisfactory results are thereby obtained.

### *Knowledge of Pneumothorax Therapy Helpful*

Those who begin the use of pneumoperitoneum will find that previous experience

with pneumothorax therapy is of great help. Otherwise the road to perfect technic and success is fraught with many pitfalls for the conscientious physician. There are many red, yellow and green signals which cannot be adequately described on paper, but can be distinguished only by the educated touch of an experienced finger.

### *Necessary Equipment*

The essential equipment for the administration of pneumoperitoneum is: A pneumothorax apparatus, 4 cc. of a 2 per cent solution of novocaine, a 5 cc. syringe with one 24 gauge needle  $1\frac{1}{2}$  inches in length for the novocaine infiltration and a 19 gauge needle  $1\frac{1}{2}$  inches in length for introduction of air. The latter needle should have the bevelled point filed shorter to make it slightly blunt, thereby reducing the danger of visceral puncture.

### *The Treatment*

For the treatment the patient is placed in one of two positions determined by the point of entrance. For the subphrenic introduction of air the patient is placed in the lateral position, as in pneumothorax, and for the upper and lower introduction of air the patient is placed in a semi-reclining position. In the latter position the points of entrance (upper and lower) are located at the left lateral border of the left rectus muscle—either just under the costal margin or three inches below the umbilicus. Neither of these points of entrance offers any advantage in any respect except that of choice to the operator.

After selection of the point of entry the skin is sterilized with iodine or alcohol and both skin and abdominal wall are infiltrated with about 4 cc. of novocaine solution. No attempt is made to infiltrate the peritoneum. The larger needle is now introduced at a slight angle—thus avoiding direct pressure on the viscera—and the tube from the pneumothorax apparatus is attached. Unless there is an already well-established pneumoperitoneum, the manometer of the pneumothorax apparatus will not register when the needle is first introduced. Due to the lack of pressure fluctuation and the constant presence of positive pressure, the manometer is of very little value in this type of injection.

The manometer may reveal the positive pressure in the abdomen following the injection of 200 to 600 cc. of air. At the first



Report of five typical cases selected at random from the nineteen cases receiving Pneumoperitoneum. All cases selected were so very far advanced that all hope for recovery had been abandoned before the Pneumoperitoneum was started.

Number	Case	Date of Treatment	Manometer Reading and Amount of Air	Reaction	Appetite	Sleep	Cough	Temperature	Sputum	Condition General
1.	B. N.	11- 9-37	0— 200 —0	0	0	0	0	101	+	Poor
		11-13-37	0— 500 —0	0	+	+	+	102	+	Improved
		11-18-37	0— 600 +3	Dyspnea	+	—	0	101.3	+	Unimproved
		11-24-37	0— 150 +2	0	+	+	+	103	+	Weaker, cold
		11-30-37	0— 450 +4	0	+	+	+	102.2	+	Body swelling Died 12-15-37
2	L. M. D.	11- 9-37	0— 200 —0	Pain	0	0	0	99	+	Nervous
		11-13-37	0— 400 —0	0	+	+	0	99.5	+	Poor condition
		11-18-37	0— 600 +5	0	0	0	+	100	+	Out of bed
		11-24-37	0— 400 +9	Pain	+	+	0	99	+	Improved
		11-30-37	0— 500 +4	Pain	0	0	0	99.2	+	Unimproved
3.	C. D.	11- 9-37	0— 200 +0	Fullness	+	+	+	100	+	Stopped
		11-13-37	0— 500 +0	Pain	+	+	+	99	+	Hemorrhage stopped
		11-18-37	0— 800 +6	0	+	+	+	99	+	Improved
		11-24-37	0— 450 +3	0	+	+	+	99.2	+	Improved
		11-30-37	0— 600 +7	0	+	+	+	99.4	+	Streaking
4.	M. A.	11- 9-37	0— 200 —0	0	+	+	+	100.2	+	Poor
		11-13-37	0— 400 +3	Pain	+	+	+	101.2	+	Improved
		11-18-37	0— 400 +4	0	+	0	+	99.4	+	Improved
		11-24-37	0— 600 +6	0	0	+	+	99.3	+	Has influenza
		11-30-37	3— 800 +7	0	+	+	+	102	+	Slightly weaker
5.	A. L.	11- 9-37	0— 200 —0	Pain	0	+	0	98.6	+	Streaking
		11-13-37	0— 400 +2	0	+	0	0	99	+	Stopped streaking
		11-18-37	0— 600 +3	0	+	0	0	99.6	+	Cold
		11-24-37	+3— 800 +6	0	+	0	0	99.4	+	Improving
		11-30-37	+4—1100 +8	0	+	+	0	99.3	+	Hemorrhaging

*Key to Table Abbreviations*

Reaction: 0 = no reaction  
 Appetite: 0 = no increase; + = increase  
 Sleep: 0 = sleeping poorly; + = sleeping improved  
 Cough: 0 = no improvement in cough; + = cough lessened  
 Sputum: — = negative sputum; + = positive sputum.

injection 200 cc. of air is usually given. Succeeding injections are increased by increments of 200 cc. until 800 to 1,500 cc. are given.

As in pneumothorax therapy, the interval of injection depends upon the rate of absorption—a four day interval being necessary for the first three to six injections. When the pneumoperitoneum has been well established, this interval may be increased to seven days.

It is the part of wisdom to explain all details of the procedure to the patient so that he may be in a receptive frame of mind, thereby avoiding reactions from fear or nervousness. During the flow of air into the abdomen the patient is questioned regarding any sensation of pain or pulling in the chest. Usually 100 to 200 cc. of air may be injected following the start of discomfort. If the pain is acute, lowering the patient's head and placing a pillow under the hips will afford relief by allowing the air to accumulate in the pelvis.

#### *Discussion of Effects and Results*

There are few, if any, hazards attendant upon entering the abdominal cavity. It is an old procedure. The most serious accident is the formation of air emboli—and these are

rare indeed. Fluid may occur infrequently, but is of little consequence. Obliteration of the peritoneal space may occur in a few instances, but the reports contain no mention of any discomfort. Clinically, pneumoperitoneum produces no ill-effects and, to date, no clinical evidence of intestinal obstruction or adhesions has developed following cessation of treatment—despite the report from Dr. Gertrude Moore, of Los Angeles,<sup>3</sup> that at autopsy these patients have shown a picture of intense chronic peritoneal inflammation. Reports of the examination of the peritoneum during life, as observed at operation, are lacking in the literature, and I have had no occasion to have any of the patients in my series operated on.

There are many favorable symptomatic results in successful pneumoperitoneum: Relief of insomnia, increase of appetite, decreased sputum, lessened cough and abdominal symptoms. The psychic effect on the patient is remarkable—especially in advanced cases.

Unlike pneumothorax, the air is absorbed from the abdomen very quickly. As a result, patients must be watched closely so that re-

fills may be sufficiently close together to keep the diaphragm continuously elevated. This can be done in sanatoria or private practice only where daily examinations can be made when necessary.

As in all new forms of therapy, a large number of cases must be studied under all conditions and followed for a number of years before positive statements can be made as to the merits and facts of the treatment. Statistical data do not yet permit a sufficient study of pneumoperitoneum, but its usefulness in selected cases has been proved even in the short time it has been utilized. Its continued use with careful observation is strongly advocated.

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#### DISCUSSION ON PAPER OF DR. A. WORTH HOBBY

*Dr. A. Park McGinty* (Atlanta): As Dr. Hobby has stated pneumoperitoneum has been used as a diagnostic procedure and in the treatment of tuberculous enterocolitis and peritonitis for a number of years. In the latter it has proved effective. In 1934 Dr. Banyai reported 100 cases of intestinal tuberculosis treated by pneumoperitoneum with symptomatic relief in 71 per cent. In 1936 Dr. Salkin reported improvement in 83 per cent of 95 cases. However, pneumoperitoneum as an adjunct in the treatment of pulmonary tuberculosis has been used for only a few years. Banyai in 1931 and 1934, Joannides in 1936, Trimble and Wardrip in 1937, and Fremmel in 1937 are the only investigators in America who have reported the use of this therapy. Therefore, Dr. Hobby may be considered a true pioneer in the use of pneumoperitoneum for pulmonary tuberculosis.

These investigators began with the premise that the improvement sometimes seen in patients with pulmonary tuberculosis in the latter months of pregnancy is due to the elevation and splinting of the diaphragm by the gravid uterus. I believe that this premise is incorrect. Some of you will remember that I presented a paper before this society last year in which it was shown that the gravid uterus elevates but does not decrease the excursion of the diaphragm. If a 3,000 Gm. fetus and 1,000 cc. of amniotic fluid cannot splint the diaphragm, I do not see how 500 to 2,000 cc. of air can accomplish this.

The subject of intra-abdominal pressures is very interesting and is still a controversial one. In 50 patients Salkin found an average intra-abdominal pressure of —16 mm. of water. After the injection of air there was a primary rise of pressure followed by a

secondary low pressure reading due to the abdominal accommodation. A tonus adjustment phase has occurred after the injection of 2,000 cc. of air.

What is the true cause of the improvement reported in pulmonary tuberculosis after pneumoperitoneum? I wonder if it could be an indirect effect due to improvement of intestinal lesions. In several necropsy studies tuberculous ulcers have been found in the intestines of 60 to 90 per cent of patients dying of pulmonary tuberculosis.

Dr. Hobby has pointed out that pneumoperitoneum is a relatively simple and safe procedure. However, it is not without fatalities. In a brief survey of the literature I noted the report of 4 deaths due to air emboli, one due to injection of air into the spleen, and one due to peritonitis following the injection of air. So the procedure is not an entirely harmless one.

The indications of Banyai as quoted by Dr. Hobby are, I believe, too inclusive for our present knowledge. Alexander in his recent book, *The Collapse Therapy of Pulmonary Tuberculosis*, does not consider pneumoperitoneum justified as a means of further elevating a paralyzed diaphragm. Those of us who have treated pulmonary tuberculosis have seen patients with far advanced bilateral lesions in whom it was impossible to establish a satisfactory pneumothorax, in whom phrenic paralysis was insufficient and in whom thoracoplasty was contraindicated because of the bilateral activity. These patients we have been forced to watch go down hill to their deaths. For this type of patient pneumoperitoneum is a welcome adjunct.

#### HONOR ROLL FOR 1939

1. Randolph County, Dr. W. G. Elliott, Cuthbert, November 9, 1938.
2. Dougherty County, Dr. I. M. Lucas, Albany, December 14, 1938.
3. Wilkes County, Dr. A. W. Simpson, Washington, January 12, 1939.
4. Hall County, Dr. Hartwell Joiner, Gainesville, January 23, 1939.
5. Hancock County, Dr. H. L. Earl, Sparta, March 3, 1939.
6. Gordon County, Dr. Z. V. Johnston, Calhoun, March 10, 1939.
7. Monroe County, Dr. G. H. Alexander, Forsyth, March 10, 1939.
8. Grady County, Dr. J. V. Rogers, Cairo, March 15, 1939.
9. Ware County, Dr. Kenneth McCullough, Waycross, March 17, 1939.
10. Turner County, Dr. J. H. Baxter, Ashburn, March 23, 1939.
11. Morgan County, Dr. W. C. McGeary, Madison, March 31, 1939.
12. Stephens County, Dr. Clarence L. Ayers, Toccoa, April 1, 1939.

The eighteenth annual Emory Medical Alumni Week will be held in Atlanta beginning May 30 and continue through June 2. The clinics and lectures will be held at Grady Hospital. A complete postgraduate course is being planned.

## QUACKERY IN GEORGIA ONE HUNDRED YEARS AGO

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One hundred years ago, a prime objective of the three medical societies in Georgia was to combat quackery. The Georgia Medical Society of Savannah and the Medical Society of Augusta were local associations, but the Central Medical Society of Milledgeville was statewide in its self-limited membership of forty. Through the pages of the newly created Southern Medical and Surgical Journal, Georgia physicians found a medium by which they could expose the follies and dangers of various empirical methods of healing such as the Thompsonian, the Dutch, the Indian and the Urine systems.<sup>1</sup>

Thompsonianism was the most widespread. It was an outgrowth of the homeopathic doctrine of "*similia similibus curentur*," originally advocated by Theophrastus. Abandoned for centuries, it had been revived by Hahnemann in Germany and introduced into the United States by Hans Gram in 1825.<sup>2</sup> Many editorials of a satirical nature appeared against the Thompsonian system reduced to a medical maxim that "the hair of the same dog was good for its bite." To indicate its superficiality, Eve wrote that the profession was "assured by Thompson himself, that what he knew of midwifery he had learned from a few minutes' conversation with an old woman." His book could be purchased by anyone for the price of \$10.00 and it contained a certificate which when filled out entitled the owner to practice.

Case histories of death following the practice of *stewing* and *boiling* were frequent. A Connecticut correspondent to the Southern Medical and Surgical Journal gave an account of a Miss E. Fox, age 30, who had been the subject of epileptic fits for two years. She went to a "steamer" in Hartford who treated her for a week with steaming and lobelia emetic. She then had six or seven fits, was given a cold dash and died in convulsions.<sup>4</sup>

A local case in 1838 is of interest.<sup>5</sup> Mr. B. S. Rhodes, of Augusta, was suffering from a slight headache and visited Dr. Milton Antony. Antony prescribed a purge but the patient wanted to be bled and prevailed upon the doctor to bleed him. This was done and Rhodes returned to his work in the railroad

yards. A few days later Dr. Antony was called to a local hotel to visit the same man but upon arrival, the patient was found dead. Rhodes had been advised by a steam doctor, Mr. Black, that he could be cured by the Thompsonian method. He was put on No. 1 (lobelia) and later on No. 6 (bayberry root, hemlock bark, ginger, cayenne and proof brandy): given a "foot bath" in a boiler, and then sweated by covering with four blankets under which hot rocks were placed. While in bed the patient suddenly had a fit and shouted, "I have been shot in the head." With the assistance of the hotel barkeeper, the patient was put in a barrel of cold water in which he died.

Another Augusta case, terminating more favorably than this, is ironical since it dealt with a "steamer" himself.<sup>6</sup> "Mr. A., of this place, a journeyman saddler and harness-maker of Broad Street, who has been a most violent and open advocate of Thompsonianism for some months and had indeed obtained the epithet of 'doctor' and was daily expected to leave town for practice on the country people, as some of the hatters, gilders, constables, etc., have done before, came to us in great distress. He stated to us that after having so strongly advocated the "steamers" as he had done, he felt ashamed to come to us for medical aid, but his necessities compelled him to do so. He stated his case as follows: That on complaining a little of slight colics from a bilious habit, he had submitted himself to a steamer's prescription and had taken in systematic order some six or eight prescriptions principally lobelia, composition tea, No. 6, etc., and that he found his strength so exhausted with abundant increase of his disease that he felt the treatment must, if persisted in, kill him." Forty grains of calomel and five aloes readily cured him.

The Thompsonians practiced not only medicine but went in for surgery as well, as evidenced by the case reported by Dr. H. V. M. Miller, of Cassville:<sup>7</sup>

"In December last, a youth fourteen or fifteen years of age, was riding rapidly through the forest, . . . when his horse took fright and he was thrown to the ground, . . . from whence he was quickly taken up and removed to the house in a state of insensibility. His father, Mr. A., is himself a *steam* doctor, as the phrase is; but not liking to trust to his own skill in this instance he called in his neighbor, the Rev. Doctor Q., who examined his condition and finding some deformity about the shoulder pronounced it dislocation of the os boachii, and proceeded after his own fashion to replace it. But after every variety of pulling and twisting which his invention could suggest had been tried, the deformity still remained, he came to the conclusion that he had erred in his diagnosis and it now unquestionably was a fracture of the humerus high up. Again his surgical knowledge was held in requisition to bandage the limb and replace the bone in its proper position; but again he was doomed to a failure. Immediately he transferred the fracture from the humerus to the scapula or shoulder blade and treated it as such for a day or two. . . . when finally he came to the con-



clusion that 'the bone which joins the arm to the backbone had been knocked out of place, and that he did not know how to get it back.' So he threw off all bandages and directed his attention to general treatment.

"There was great pallor of countenance and oppressed breathing soon after the injury; to relieve which or to bring him back as the Doctor had it, stimulants were administered in large quantities, as No. 6, brandy, etc.

"Some days passed without the restoration of reason, the Doctor thought that he ought to take 'some more No. 6, some diaphoretic powder and be sweated.' About this time the father of the boy began to entertain doubts as to the infallibility of his system and a friend persuaded him to a trepan, to perform which Dr. Miller was called. The dislocation was a luxation forward and downward of the scapular end of the clavicle and the brain had suffered a concussion. There was no fracture and hence a trephine was uncalled for. After a correction of the dislocation the patient was well in two weeks."

In spite of the indictments for manslaughter in several cases in the United States, Thompsonianism persisted in Georgia for many years and in 1851, Dr. John Stanback Wilson reviewed the prevailing laws which still permitted the practice.<sup>8</sup> In 1852 the Legislature gave the Southern Botanicomedical College at Macon the sum of \$5,000.00.<sup>9</sup>

Another system of medicine which came in for criticism was the so-called Indian Medicine. Georgia suffered from two outstanding quacks: Peter Smith and John Mackentosh. Smith was born in Wales in 1753. His family settled for a time in New Jersey, and the boy was educated at Princeton. He read medicine under his father. He became an itinerant Baptist preacher, stoutly defending anti-slavery. He traveled through Georgia, as a self-styled Indian Doctor and wrote a dispensary on native drugs. He finally settled in Cincinnati and died in 1816.<sup>10</sup>

No history of Mackentosh is available except a tract, published by Seth Holderwell in New York in 1827, and sold on the streets for 12½ cents per copy. For dropsy Mackentosh prescribed milkweed root, green elder and wintergreen; for cancer, pokeberry boiled to an ointment in cream; for asthma, skunk's cabbage. The cure for jaundice was butter-nut root, vinegar and lye; for the itch, hellebore and tobacco; for rickets, a physic with elder tea, burdock seeds, fennel and oyster

shell; for child bed fever, rattlesnake gall in boiling water.

In retrospect, it is of course difficult to define quackery. Self-medication through patent medicines was as common then as now. George Harral, pharmacist at Savannah, advertised at the Sign of the Man and the Mortar, such items as Solomon's cordial, balm of Gilead, anti-impetigides for leprosy, King's evil, gout and lues, used by the profession and lay alike. Morison's Hygeian Pills, although in disrepute with the critical members of the profession, were still widely used mainly because the British Government received £ 7,000 per year as a tax of ½ d. per box.

Physicians also were greatly confused as to the value of electricity as a therapeutic agent. The outstanding quack in America of course was Perkins, of Salem, Massachusetts, who advocated the use of his metallic retractors for all kinds of ailments. Perkins visited Georgia with his "points" and advertised in the Augusta Chronicle April 19, 1798.<sup>13</sup> He took up temporary residence at the lodgings of Mr. Law and ran a free clinic from which he proposed "to sell points for the relief of pain and inflammation." Perkins' system was based on little that was rational, but the profession felt that in electricity a definite therapeutic agent was to be found. In 1836, the Medical Society of Augusta offered a premium of \$50.00 for a galvanic apparatus that would control revulsion, and discussed at length the relative merits of the *calorometer* whose sparks were used for paresis and were not as disagreeable as the *deflagrator*.<sup>14</sup>

The status quo of bleeding also came in for much difference of opinion. William Woodsen Waddell, of Athens, in 1831, defended the practice in gleet, menorrhagia and diabetes,<sup>15</sup> although Dennis Smelt of Augusta had advised against bleeding as early as 1804.<sup>16</sup> In 1836, the Massachusetts Medical Society advertised for 1,000 best leeches for which they would pay \$500.00. Local men collected them from the streams of Georgia and in one case applied 26 for spinal irritation.<sup>17</sup> This was considered sound medical practice at the time.

James Ewell, of Savannah, wrote a *Plantar and Mariner's Companion* which had a wide sale and went through ten editions. Yet the

review in the New York Medical and Philosophical Journal and Review for 1809 accuses him of quackery.<sup>18</sup>

Was the practice of John Brickell sound when he used 20-30 kettles of boiling water to sear the wound in hydrophobia? Looking backward through the century that saw the development of the germ theory of disease, his technic was not only rational but ingenious.

Bathing in natural springs was advocated in Georgia one hundred years ago as it is today. Ephraim Peebles was the proprietor of the Jefferson Baths, 23 miles from Augusta, and Dr. Cox's establishment at the base of Kennesaw Mountain, 1½ miles from Marietta, was still giving *water cures* in 1855. White, however, in his Historical Collections, refuses to enter the discussion of its relative therapeutic values but says that many people were cured of their ailments.<sup>19</sup>

Every doctor of any standing had on his medical shelf a copy of Combe's Phrenology. As we know it today, phrenology was a system of quackery, but with it grew the careful observations of Gall which have led directly to our present day methods of neurological examination.

Throughout the history of medicine, fortuitous discoveries have led to theories of practice. These have been tested, verified and adopted or negated and abandoned. Medicine is a changing subject and it is doubtful if a stabilized position will ever be reached. The profession defends its established tenets. Within its organization, new discoveries claimed to be of therapeutic value must be openly advanced in order to be subject to the closest impersonal scrutiny and criticism. On the borderline of pseudomedicine, it is still the accepted duty of the profession to protect the public against fraud. Quackery still exists. An exposé made by the American Medical Association, reminiscent of Perkin's points, is the case of *electrifiable plates* manufactured by J. H. Hughes of Atlanta in 1830. These were advertised as a cure if worn in the shoes<sup>20</sup> for hardening of the arteries, hypertension and diabetes. Such old dodges still catch the ignorant layman. The better educated hypochondriacs are taken in by more scientific methods. Based on a public interest and superficial knowledge of light waves,

Dnishah Ghadiali developed a *spechtrochrome therapy* to his own advantage.<sup>21</sup>

Every doctor knows for a quack the "cancer doctor" who flourishes with his pastes in the Valley with a prescription abandoned by the profession one hundred years ago. But he may not be aware of the more subtle system of therapeutic sales being created by many drug houses through the medium of the house organ. Unless he exercises that rare judgment which distinguishes the truly scientific from pseudomedicine, he may forget that an appended bibliography citing reputable journals does not constitute evidence that the investigator whose work is abstracted is recommending the products advertised on the page opposite.

One hundred years ago, Rush was one of the loudest in his accusation of Quack, Quack, Quack. There is a moral in this lesson but it is better to omit it.

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21. ....: Nostrums and Quackery, 3:152, 1921.

#### PRIZE—ANNOUNCEMENT

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces that the annual Foundation Prize for this year will be \$100.00. Those eligible include only (1) interns, residents, or graduate students in Obstetrics, Gynecology and Abdominal Surgery, and (2) physicians (M.D. degree) who are actually practicing or teaching Obstetrics, Gynecology or Abdominal Surgery.

Competing manuscripts must (1) be presented in triplicate under a non-de-plume to the Secretary of the Association before June 1st; (2) be limited to 5,000 words and such illustrations as are necessary for a clear exposition of the thesis; and (3) be typewritten (double-spaced) on one side of the sheets, with ample margins.

The successful thesis must be presented at the next annual (September) meeting of the Association, without expense to the Association and in conformity with its regulations.

For further details, address Dr. James R. Bloss, Secretary, 418 - 11th Street, Huntington, W. Va.

# POST-SULFANILAMIDE AGRANULOCYTOSIS\*

## Report of Case with Recovery

BYRON J. HOFFMAN, M.D.

Atlanta

L. S., colored female, aged 19, single, was admitted to the medical service of Grady Hospital on July 9, 1937, with a polyarthritis of 5 days duration.

Urethral and cervical smears were positive for numerous gram negative intracellular diplococci. The erythrocyte count was 3,660,000; leukocyte count 11,600, with 81 per cent neutrophils, 18 per cent lymphocytes and 1 per cent eosinophils. Wassermann negative. Urinalysis showed a trace of albumin. Fluid was not present in the joints in sufficient amount for aspiration. A presumptive diagnosis of gonorrheal arthritis was made and sulfanilamide (Prontylin) was begun in doses of 1.2 Gm. 4 times daily for 2 days, 0.9 Gm. 4 times daily for 3 days, and 0.6 Gm. 4 times daily for 8 days. Since mild joint pains persisted, and no untoward effects of sulfanilamide were noted the dose of 0.6 Gm. 4 times daily was continued for 4 additional days. The temperature varied between 98.6 degrees and 102.6 degrees F. until 2 days before dismissal when it became normal and remained so. She was allowed to go home July 27, at which time she had no complaints, a total of 49.2 Gm. of sulfanilamide having been given.

hospital where her temperature was found to be 105 degrees F.

On physical examination the patient was more acutely ill, and apprehensive, than at the previous admission. Her temperature was 105 degrees F., pulse 140, respiration 20, and B. P. 126/80. Her skin and lips were dry, and the tongue was heavily furred but there was no remarkable odor to the breath. The tonsils were hypertrophied and covered with a thick white exudative membrane which extended about 0.5 cm. on the left posterior palate. The leukocyte count was 1,350 per cu. mm. and all cells were lymphocytes; erythrocyte count was 2,800,000. The urine had a 2 plus albumin and 2 to 3 pus cells per high power field.

She was immediately matched for transfusion and 200 cc. of whole blood were given by the direct method. Other treatment consisted of one 3 cc. ampule of liver extract intramuscularly daily, ferrous sulphate 0.3 Gm. daily, forcing of fluids to 4,000 cc. daily, and sodium perborate irrigations to the throat every 2 hours. Small transfusions of 200 cc. were repeated on August 2 and 3. The leukocyte, differential and erythrocyte counts may be followed from the accompanying chart:

The patient continued acutely ill until the morning of August 5 when her change for the better was dramatic. Her temperature dropped to 100.4 degrees F., pulse 120, and she was obviously more comfortable. The leukocyte count was 6,650 per cu. mm. The Schilling count at this time showed 9 segmenters, 54 bands, 12 juveniles, 6 myelocytes, 2 eosinophils, and

Date	Hour	W. B. C.	Differential		R.B.C.
			a. lymphocytes percent	b. neutrophils percent	
8-1-37	8 A. M.	1,350	100		2,800,000
8-1-37	12 P. M.	1,100	100		
8-2-37	8 A. M.	1,250	100		2,330,000
8-2-37	8 P. M.	1,400	100		
8-3-37	8 A. M.	2,350	100		2,960,000
8-3-37	5 P. M.	2,400	100		
8-4-37	8 A. M.	1,900	100		3,270,000
8-4-37	6 P. M.	2,950	100		
8-5-37	8 A. M.	6,650	17	83	3,270,000
8-5-37	3 P. M.	13,300			
8-6-37	8 A. M.	14,100	19	81	3,630,000
8-7-37	8 A. M.	28,200	5	95	3,560,000
8-7-37	9 P. M.	37,300			
8-8-37	8 A. M.	20,050	4		
8-9-37	8 A. M.	15,350	24	76	
8-11-37	8 A. M.	7,150	39	61	3,840,000

On July 28 she experienced general malaise but had no definite complaints other than a mild sore throat. The next day her throat was worse and friends informed her that she felt hot, but she did not notice an elevated temperature until the following day, when she felt hot, weak, and had much difficulty in swallowing liquids. Bed rest and saline gargles gave no relief. She returned (3 days after dismissal) to the

17 lymphocytes. By 8 P. M. of the same day her temperature had dropped to 99 degrees F., pulse to 110 and the leukocyte count had risen to 13,300. Smears from the pharynx at this time were negative for Vincent's organisms.

The leukocyte count continued to rise very rapidly, reaching its peak of 37,300 on August 7, then gradually returning to 7,500 by August 11. The temperature remained normal after the evening of August 5. Following the appearance of the polymorphonu-

\*From the Department of Medicine, Emory University School of Medicine, Grady Hospital Division, Atlanta.



clears in her blood the membrane in the throat rapidly disappeared leaving a deep pit in the left tonsil. She was discharged August 11. At that time her leukocyte count was 7,450, with differential count of 24 per cent lymphocytes, 76 per cent neutrophils, and a normal temperature. She was followed in the out patient department for a period of three months. During this time her course was uneventful.

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## MODERN CONCEPTS IN INDUSTRIAL MEDICINE

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C. W. ROBERTS, M.D.  
*Atlanta*

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There is interwoven in the activities of an individual, whether working alone or as the member of a group, the ever present chance that harmful as well as helpful influences may be created. Thus emerges the concept of even-handed justice which enjoins upon us the necessity of taking stock of one's work in terms of its net effect upon society as a whole. Changing conditions with sequential bearings upon the interests of all groups and levels of society have forced a recognition of the fact that wide application of the principle of common equity must prevail if we are to avoid threatening failure of the so-called American way of life. Revealed, too, is the necessity of mutually cooperative effort in contrast to individual action in the attempted solution of our diverse community problems.

Among the many that challenge us as physicians is that found in the newer field of medicine designated under the general head of Industrial Health as opposed to the older and less inclusive terms of Traumatic or Industrial Surgery. The title Industrial Medicine seems preferable when it is remembered that this rapidly expanding service is charged with the development and preservation of the total health of workers—an activity requiring the talents of physicians in the broad field of everyday practice if the full implications of the task are to be met.

Sound business practice seeks to avoid, in so far as is possible through wise management, the imposition of preventable burdens upon its employees. But all business is not sound nor is all management wise. Even so implemented the problem of health hazards inherent in the broad field of manufacturing is of such nature as to require approach

through a well coordinated program in which sanitary and technical engineers together with physicians skilled in preventive and curative medicine must take their places along with alert business management if future activity in this important medical field is to have the attention which its importance makes mandatory.

Beginning with the passage of American compensation laws in the early part of this century, and to the extent prescribed by the medical provisions of these acts, employees and indemnity insurance companies assumed responsibility for restricted medical care of workers covered by such legislation. The earlier acts limited indemnity to medical care and wage loss resulting from accidental injury. There has been added, however, in many states, coverage for occupational diseases and it seems consistent with trends to predict that in the near future a similar provision will be found in compensation laws throughout the country. To these mandatory medical services provided for such a large group of our population—services which by their legal nature subject them to all the dangers inherent in other forms of socialized medicine—are to be added voluntary plans of medical care through which more or less complete services for all forms of illness arising in connection with work is furnished. Some of these plans extend beyond the plant to include the workers' dependents. It should be made clear that the origin and expansion of these forms of medical care, while welcomed by employers because of the contribution they make to a sense of protection from ill advised prosecution for personal injury but more particularly because a good plant medical service reduces the number of injuries and absenteeism because of sickness, thus favorably influencing the production schedule, are yet not to be interpreted as designed attempts upon the part of industrial management to usurp the prerogatives of the medical profession. On the contrary these service plans in industry must be accepted as a logical and necessary evolution arising from necessity and justifying the approval and support of good business and the medical profession alike. When the potential population eventually to be served by these expanded plans is considered, estimated to be not less than one-third

of the nation's workers, it becomes apparent that medical leadership must be supplied to guide those who are now operating such plans but particularly to give assistance in setting up new programs in this field if the traditional patient-physician relationship is to be preserved. It was with these considerations in mind that the House of Delegates, meeting last year in Augusta, and in response to a recommendation of the Subcommittee on Fee Schedules, of which Dr. C. F. Holton was chairman, approved the appointment of a Committee on Industrial Relations and authorized the formation of the Georgia Association of Industrial Surgeons. Likewise in acknowledgment of the great assistance which such state committees and organizations could render in reciprocal activities such as the elaboration of standards of industrial medical practice, the guiding of interrelationships in the profession and outside and in matters of detail in which it is desirable that the profession speak with uniformity and consistency, that the Council on Industrial Health of the American Medical Association, early after its organization, requested constituent associations to appoint committees under whose direction local problems, concerned with the welfare of employes in industry might be equitably resolved.

Along with other interested agencies in the State—employers, labor leaders, insurance companies, administrators of compensation law—the Georgia Committee on Industrial Relations which—in the interest of uniformity and in keeping with the suggestion of the Council might henceforth be spoken of as the Committee on Industrial Health—has an enormous amount of work to do in order that this growing medical service, falling under the general head of Industrial Medicine, may be guided into and protected by the same ethical principles as characterize the older branches of medicine. This newest specialty desires and deserves to be protected by the same high standards as are accorded to its sister departments. Good medical care rendered by physicians of high professional and ethical standing is the end devoutly to be sought. Anything less will not only dishonor our profession but impose upon a growing group of our population a counterfeit system of practice, inspired by commercial motives

and subject to the importunities of lay directorship. It may be said, however, to the credit of interested groups, both lay and professional, that the period which tolerated in the industrial physician a lesser measure of integrity or excused in him derelictions in either educational or physical appointments for his task, has happily passed into the limbo of an unsung era. We have already arrived at a point in the evolution of industrial medicine where the poorly prepared physician, either from the standpoint of professional fitness in this new field or because of ethical casualness is no longer equal to the tasks which are devolving upon him or able to command the respect of enlightened industrial employers.

The job of industrial medicine in this day of changing concepts is to hold a safe and common sense course between the inefficiency of extreme individualism on the one side and the tyranny of regimented medicine on the other.

Through the solution of the pressing problems of medicine in industry where we find one-third of our population too proud to accept charity, too poor to meet unaided the modern cost of efficient medical care, we may yet find for the perplexities of all medicine a muchly needed breathing spell and perhaps even more, that through a strange paradox, the profession's erstwhile contrary stepchild may yet prove to be the modern Moses to lead us out of encircling gloom into the cheering light of a new medical day.

#### THE MANAGEMENT OF TUMOR OF THE TESTICLE

Usually the general practitioner of medicine, not the specialist, first sees the patient with a neoplasm of the testicle. Although uncommon, such tumors are not extremely rare. Most of them are very malignant, and it is only by early diagnosis and proper treatment that any patients are cured. FRANK HINMAN, San Francisco, and TRACY O. POWELL, Los Angeles (*Journal A. M. A.*, Jan. 15, 1938), discuss what would seem to be the logical management of the patient in the light of recent knowledge. Two illustrative cases of unusual interest are reported. An analysis of fifty-eight cases of tumor of the testicle, in all of which hormone tests were made, forms the basis for the outline of management. The majority of the fifty-eight patients have been observed for three years or longer. The steps to be followed in the logical management of tumor of the testis are (1) clinical history, (2) physical examination, (3) hormone test of the urine, (4) orchidectomy, (5) histologic-hormone classification of the tumor, (6) prognosis and (7) subsequent treatment.

## THE PRESIDENT'S PAGE

## OUR PROBLEMS

It is the supreme obligation of the medical profession to provide the public with medical care of the highest possible quality, and to protect them from the results of inferior service. The profession can and is anxious to render the best medical care to every individual provided it has the help and cooperation of the State and Federal governments.

We like to think of the great advantages that could be had by all concerned—the public, the physicians and the progress of scientific medicine—if local, state and federal agencies and physicians could all unite in a non-political good program so all people, especially the medically indigent and the low-income group, could receive the very highest class of medical, dental, hospital and public health services. Then all physicians would be thoroughly occupied examining patients and treating diseases, and utilizing known preventive measures for protection of thousands of poor people that are today in need of attention.

Many people have curative diseases and do not know it; others could prevent acquiring disease if they knew how. How can they know it if they are not told? Some people are helpless on account of financial embarrassment. It has been said that something is wrong with our present system. Claims have been made that millions of Americans receive no medical care of any sort while thousands of doctors, dentists and nurses are without adequate incomes because they can not find patients with money enough to pay for their services. Therefore, organized cooperative medicine seems sure to come, but it can never be as acceptable and as satisfactory as our present plan of each person having his private physician. Worthwhile, sensible people will always rebel against being tagged just because they are sick.

Paying the doctor to keep you well, as is practiced in the Orient, is the best method of all. It is more economical and better in every way to maintain health than to restore health. I find more people each year ready to accept this type of relationship with the physician. Fees can be scaled to meet the ability of the patient to pay and the poor can obtain the same sympathy and thoroughness in treatment as the rich.



Physicians interested in the group health movement do not believe in the involuntary tax-supported governmental socialized medicine plan, but they believe in group practice. There is, of course, a demand and a need on the part of a certain segment of the mass population for tax-supported free medical service. But that field is restricted, or should be at least, to that lower group in the economic scale who lack the means to buy medical service at any price or through any medium.

To safeguard not only their health, but also the health of the public as a whole, that unfortunate group should be cared for medically, as well as in matters of food, clothing, shelter, etc., out of the public treasury. It falls in the category of public charity or public relief.

Physicians of the group health movement believe in group practice because they find it means better doctoring for less money for that great substantial middle class who can pay, want to pay, and do pay for the service they get, and to whom accepting of public charity or public relief is abhorrent. Group medical practice, it is claimed, gives this middle class the opportunity, through the payment of modest monthly fees, to spread the cost of unpredictable illnesses over a long period of time.

It is not generally realized that the government has established, and in most cases subsidizes, group health units in twenty-five states. The Farm Security Administration is the parent of these units, with the purpose of keeping farmers in health so they can work out the debts they owe the government.

GRADY N. COKER, M.D.



# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

APRIL, 1939

## ATLANTA SESSION

The officers of the Medical Association of Georgia are anxious for all members to attend the Ninetieth Annual Session to be held at the Biltmore Hotel, Atlanta, April 25-28, 1939.

Our host, the Fulton County Medical Society, again extends you an invitation and hopes you will attend all scientific and social meetings.

We think it will be a source of many pleasant future memories to attend the Atlanta session.

## WHY THE AMERICAN MEDICAL ASSOCIATION?

A popular pastime among the uninformed is abuse of the American Medical Association, says the Public Relations Bureau of the Medical Association of Georgia. Typical of these remarks is: "Doctors are fine fellows individually, but their national association is a trust, is a dictator, is vindictive, is oppressive and is retarding health conditions in this country," or any other scathing epithet thought of.

"Mark Twain once said: 'The more one defends one's character, the blacker it gets.' We shall not attempt to defend the character of the American Medical Association; it needs no defense. But we do wish to tell you a few things the American Medical Association is doing for the welfare of the public and the uplift of the medical profession.

"More than 1,800 Georgia doctors of medicine — your family physician among them — through their affiliation with their county medical societies and State Medical Association belong to the American Medical Association.

"The American Medical Association issues a weekly publication, *The Journal of the American Medical Association*, which has a circulation of more than 100,000. An average of fifty of its pages are filled with practical and scientific articles, the best produced by the doctors of medicine of these United

States. The subject range covers all known diseases.

"Its remaining forty pages are devoted to editorials and current comments on every phase of medicine and medical practice. It reviews the activities of the Association's Woman's Auxiliary. It distributes special articles for radio broadcast. It reviews economic conditions and their relation to the public health, and devotes much space to the latest discoveries in preventive medicine in this and foreign countries.

"It reviews hospital construction and hospital management, and the international reports on vital statistics, so that its readers may know just how our work compares with that in other parts of the world. It carries a letter from practically every foreign medical center. It abstracts and lists all worth while current medical articles published throughout the world, and its medical news pages keep every state in close touch with its neighbors.

"Would you wish to have the families of America — yours included — robbed of the benefit of this continuous post-graduate medical education?

"The American Medical Association maintains bureaus of investigation through which it exposes in *The Journal* quacks and their methods of practice along with fraudulent and harmful remedies advertised to the public. The Association publishes the results of prosecutions against manufacturers of harmful medicines, spurious methods of practice and poorly operated institutions, and suits for malpractice. Its various departments and laboratories work hand in hand with the Federal Pure Food and Drug Department in Washington. The Association never prosecutes anyone, but reports the results of its investigations direct to government authorities who check them, and, when necessary, institute legal proceedings to protect the people.

"Is it any wonder that such organization has its enemies? It has been sued many times but no recoveries have been made. It is fearless in its attack on those who are trying to defraud the public by whatever means.

"The Association maintains a library from which a member wishing to study any disease or group of diseases may obtain all the neces-

sary literature, either in abstract or original form.

"In addition to *The Journal*, it publishes numerous magazines. *Hygeia*, styled for the public, has sound scientific articles in non-technical English which may be understood and enjoyed by anyone. Other publications are issued in the most highly scientific and technical terms.

"Verification of these statements may be found in any public library in this country.

"Again we ask: Would you wish unjust attacks to cripple an organization which spares no effort to educate the physicians and protect the people of America?"

### SOCIALIZED MEDICINE

Since the physician deals so essentially with the enormously complex variations in human reactions he should have a creative imagination as well as scientific curiosity and be unwilling to confine himself to standardized procedures. An understanding of the principles of scientific investigation should aid him to judge critically, to appreciate the nature and significance of proper controls, and to evaluate the many communications recently published by the lay press on the subject of socialized medicine. Most of these communications have been written without any thought of minimizing the magnificent achievements of the medical profession, but merely in the hope that mention of some of the commonly overlooked aspects of their work may bring to them remuneration and an even greater measure of public understanding and appreciation than they now enjoy. Too often in the past, unfortunately, some leaders in the medical profession have tended to ignore the problem of socialized medicine altogether as long as possible and, when at long last it loomed up inescapably, tried to fight it instead of making an effort to solve it. They, apparently, do not realize that subservience to the past makes stagnation; development of it is true progress.

The governmental and industrial leaders of today are beginning to have an economic and sociologic background with which to think through the remoter human implications of the decisions they make and the policies they pursue. They are beginning to work out, step by step, some sort of social-

ized medicine with respect to the underprivileged and the effect of it on the whole lives of these citizens. These leaders pin their faith to the hope that all these tiny steps forward, scattered all over the country and many counties of Georgia (under the able direction of Dr. T. F. Abercrombie), influencing each other by the contagion of example and by the educational process of thoughtful discussion, will intergrade into a march of progress that, however halting and irregular it may at times appear to be, will have a firm ground under its feet.

The key to the whole situation, according to their way of thinking, is the employment of a sufficient number of physicians, either full or part-time, who have not only a sound professional training but also enough understanding of the medico-social, psychologic, economic and allied aspects of individuals, to better adjust these human problems to the welfare of society at large. Many of us are hoping that such progress will be made rapidly enough to forestall the motivation for and the possibility of too much legislative experimentation.

But, you say, how does socialized medicine affect the private practice of medicine? The answer is that more and more poor, but self-respecting people, will be able to consult a private physician of their own choosing with the full knowledge that he will be compensated for his services. If by this means these people can, even to a small extent, diminish the worries inherent to health insecurity, socialized medicine will have made the greatest contribution of the century to the promotion of the mental health of vast numbers of people. Always important in itself, mental health often influences, if it does not completely dominate, physical health. To see a loved one fighting diabetes, crippled by infantile paralysis, wracked by the agony of angina, or bravely enduring some chronic disease, and be powerless to secure adequate hospitalization and the physician of one's choice or do more than stand by and wait, is one of the most mentally disturbing of human experiences. Since the progress of medicine depends largely upon the social order, the relation of medicine and society are reciprocal. Should the physician desire greater official recognition in the newer social order, he must

utilize his scientific training to investigate standardized political procedures and direct his scientific curiosity toward effecting a more cohesive medical profession.

N. M. OWENSBY, M.D.

### SULFANILAMIDE IN URINARY INFECTIONS

Due to the great amount of interest shown in the drug sulfanilamide, and the wide divergence of opinion as to the efficacy in urinary infections, it was decided to send a questionnaire to all members of the Georgia Urological Association, to learn the combined opinion of Georgia urologists.

The uniformity of opinion on some questions was remarkable, while the wide divergence on others was just as striking. All had used the drug in both upper and lower urinary tract infections. Most agreed that results in upper urinary tract infections were unpredictable and would not be good as long as any obstruction existed. In general, lower urinary tract infections gave the best results. Opinion was unanimous that urethritis responded better to sulfanilamide than to any other urinary antiseptic. Most interesting was the fact that there were no cases of quick cures of gonorrhea. Cystitis usually responded well unless there was stone, stricture, or prostatic obstruction. The drug is of definite value in certain patients following prostatic resection, and other surgical procedures on the prostate and bladder. Chronic prostatitis is often resistant to sulfanilamide. Opinion was almost unanimous that infection with *B. Coli*, streptococcus and gonococcus responded best to sulfanilamide. Staphylococcus infections showed least response to the drug, although half the replies also reported unfavorable results in colon bacillus infections.

The dosage employed varied from twenty to one hundred twenty grains daily. The average was sixty to eighty grains for two to four days and decreasing gradually to twenty or thirty grains daily.

The reactions noted were cyanosis, nausea, headache, dizziness, skin eruptions, edema, agranulocytosis, diarrhea, gastric pain, chills and fever, three severe cases of urticaria, and low values on hemoglobin. Low white counts were reported by less than half those reply-

ing. One case of acute hemolytic anemia was reported. One case of pleurisy was attributed to the drug. All observers felt that the blood disturbances were the most serious, though fortunately relatively rare. Most believed that the seriousness of other reactions depended upon their severity, rather than their type. The skin eruptions, nausea and vomiting, severe headache, and febrile reactions were also considered to demand withdrawal of the drug, if present to any appreciable extent.

The percentage of patients who do not tolerate sulfanilamide was reported at from 1 per cent to 80 per cent by different observers, but the majority felt that less than 15 per cent of patients were unable to continue the treatment.

Percentage of satisfactory results obtained was variously reported at from 25 to 90 per cent. The average was 67 per cent of good results. All stressed the fact that sulfanilamide was used as an adjunct to regular treatment, and that benefit in the presence of obstruction or other complicating factors was uncertain and temporary.

An average of 27 per cent failures due either to inability to tolerate the drug or to lack of response was noted. One urologist felt that he had no failures, while another reported almost 100 per cent of gonorrhea cases as failures. The point was stressed that sulfanilamide alone would not cure gonorrhea, and was useful only as an adjunct to other treatment in the various types of non-gonorrheal urinary tract infection. The most striking feature was the rarity of complications in gonorrheal patients when treatment was begun early. The course of this disease is also shortened by the use of sulfanilamide.

W. E. UPCHURCH, M.D.,  
Secretary, Georgia Urological  
Association.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

The National Advisory Cancer Council announces that financial grants for cancer research in designated hospitals and medical schools will be considered. The Council will discuss policies regarding the training of specialists in various phases of cancer work.



### WOMAN'S AUXILIARY : OFFICERS 1938-1939

President—Mrs. Warren A. Coleman, Eastman.  
President-Elect—Mrs. Eustace A. Allen, 18 Col-  
lier Road, N. W., Atlanta.

First Vice-President—Mrs. H. G. Banister, Ila.  
Second Vice-President—Mrs. Jas. L. Nevil,  
Metter.

Third Vice-President—Mrs. T. J. Ferrell, Way-  
cross.

Recording Secretary—Mrs. Cleveland Thompson,  
Millen.

Corresponding Secretary—Mrs. J. Cox Wall,  
Eastman.

Historian—Mrs. C. C. Brannen, Moultrie.

Treasurer—Mrs. Robert Woodbury, Augusta.

Parliamentarian—Mrs. Ralph H. Chaney, Forest Hills, Augusta.

#### *Tenth District*

Mrs. Warren A. Coleman, of Eastman, president of the Woman's Auxiliary to the Medical Association of Georgia, was the principal speaker at the meeting of the Tenth District Auxiliary, which was held in February at the home of Mrs. H. H. Cobb on Milledgeville Avenue in Athens. Mrs. Coleman urged the members to work in other organizations, to which they belong, on health committees. She also urged them to emphasize the social side of meetings and strive to enlist all eligible members.

Mrs. Frank Dennis, of Eatonton, deputy commissioner of the Woman's Field Army for Control of Cancer, gave an excellent report of a conference of field workers held in Atlanta recently. She stressed the fact that the only hope of a cure in cancer was treatment in the early stages of the disease and she urged an annual health examination.

Mrs. H. G. Banister, of Ila, first vice-president of the State Auxiliary and president of the Clarke County group, distributed health literature. Mrs. Banister welcomed the guests, to which Mrs. Ralph Chaney, of Augusta, responded. Mrs. H. W. Birdsong gave the opening prayer. Mrs. B. C. Teasley, of Hartwell, Mrs. Chaney and Mrs. Birdsong were appointed on the nominating committee. Mrs. S. D. Brown, of Royston, district manager, presided and presented Mrs. Frances White Yow, who gave vocal selections. Mrs. Cobb served a delicious luncheon following the meeting.

#### *Georgia Medical Auxiliary*

The Woman's Auxiliary to the Georgia Medical Society met on February 1 at the Georgia Medical Society Hall in Savannah, the meeting was open to the public and well attended. Mrs. Julian Quattlebaum, public relations chairman, talked on Social Hygiene and presented Dr. E. Carson Demmond as guest speaker. Dr. Demmond explained the pre-marital examination bill and the basic science bill and their effect on individual health problems and medical service to the general public. Copies of Auxiliary health education leaflets were distributed.

Mrs. C. M. McGill reported on the meeting of the Woman's Auxiliary to the South-

ern Medical Association and Mrs. J. C. Metts told of plans being made for observance of Doctors' Day. Mrs. Otto Schwalb told of the Sunshine Unit pantry shower and two new members, Mrs. Oscar H. Lott and Mrs. T. A. Peterson, were welcomed. A nominating committee, composed of Mrs. William H. Myers, chairman, Mrs. S. P. Sanford and Mrs. G. Herman Lang, was appointed.

#### *Richmond County Auxiliary*

Mrs. Eugene Matthews was elected president of the Woman's Auxiliary to the Richmond County Medical Society at the February meeting held at the home of Mrs. John Brittingham in Augusta. She succeeds Mrs. R. C. McGahee. Other officers elected were Mrs. Ralph Chaney, first vice-president; Mrs. G. Lombard Kelley, second vice-president; Mrs. A. P. Briggs, third vice-president; Mrs. Claude Tessier, treasurer; Mrs. Richard Torpin, recording secretary, and Mrs. Lucius Todd, corresponding secretary. Mrs. Harvey Butler and Mrs. Claude Tessier were joint hostesses with Mrs. Brittingham at tea following the meeting.

The January meeting of the Richmond Auxiliary was held with Mesdames C. M. Burpee, H. G. Mealing, S. Y. Thompson and R. L. Rhodes joint hostesses at the home of the former in Augusta. Mrs. Everett Sander-son reviewed the life of that brilliant scientist, Madame Curie, discoverer of radium, and Mrs. Ferguson Hamilton reminded the members that January is the month set aside as a memorial to Jane Todd Crawford, the first woman to undergo an abdominal operation. Plans for getting Hygeia into the schools and homes of Richmond county were discussed.

#### *Barrow County Auxiliary*

The Barrow County Medical Auxiliary met in December at the home of Mrs. Ernest R. Harris in Winder with Mrs. W. T. Randolph presiding. It was reported that the Auxiliary had assisted in the Christmas Seal sale, was waging a campaign against diphtheria and had distributed 1,000 health leaflets.

Communications consisted of a request from the State Legislative chairman to urge legislators to vote for and assist in the pass-

age of the basic science bill; a bulletin from the State health chairman requesting the use of the health material that the Woman's Auxiliary to the Medical Association of Georgia and the State Board of Health have for presentation to lay organizations; cards of acknowledgment from the families of the late Judge R. B. Russell and Col. E. J. Harris; and a letter asking the Auxiliary to assist the Woman's Army for Control of Cancer in its spring drive. Tea was served following the meeting.

#### *Fulton County Auxiliary*

The Woman's Auxiliary to the Fulton County Medical Society met on February 4 at the Academy of Medicine in Atlanta, the president, Mrs. B. L. Shackleford, presided. A report was given of the successful book review, given by Mrs. Robert Church and sponsored by the Auxiliary for benefit of the infantile paralysis fund. Mrs. Shackleford reported writing letters to Fulton County representatives in the State Legislature asking them to vote for the bills in which the Medical Association of Georgia is interested. Dr. Marion Benson gave a most interesting talk on "History of Anesthesia."

The March meeting was held on the first Friday at the Academy of Medicine in Atlanta, Mrs. Shackleford presided. The meeting was followed by a luncheon at which the new members were honor guests. Excellent reports were submitted by the chairman of the various committees, showing a wide variety of excellent accomplishments during the year. Dr. Edgar H. Greene, president of the society, and Dr. Hal Davison, chairman of the Advisory Committee, were present and made short talks. Dr. Greene stressed the progress that has been made throughout the State along the lines of medical legislation sponsored by the Medical Association of Georgia, though not all bills have been passed.

#### *Baldwin County Auxiliary*

The Baldwin County Medical Auxiliary met on March 13 at the home of Mrs. R. E. Evans in Milledgeville as guests of Mrs. Evans, Mrs. W. M. Scott and Mrs. R. W. Bradford. Mrs. C. H. Richardson, president, announced that the Auxiliary had again been placed on the nation's honor roll for gaining a large number of subscriptions to the magazine Hygeia. Due to Mrs. Binion's efforts, the Auxiliary has the honor of having secured second to the largest number of subscriptions in the United States. Mrs. Sam Anderson and Mrs. J. R. S. Mays were elected delegates to the state convention.

Following a short program, consisting of a quiz conducted by Mrs. L. P. Longino, a tribute to Dr. Crawford Long by Mrs. C. B. Fulghum and a tribute to our living doctors

by Mrs. J. R. S. Mays, the Auxiliary enjoyed an inspiring talk by Mrs. Frank Dennis, of Eatonton. Mrs. Dennis is Sixth District commander of the Cancer Control campaign soon to be launched everywhere. Mrs. Jere Moore, who is captain of the campaign in Baldwin county, was a guest and discussed plans for the Cancer Control program in Milledgeville. After the program, delicious refreshments were served by the hostesses.

#### *First District Auxiliary*

Mid-winter meeting of the Auxiliary to the First District Medical Association of Georgia was held in Statesboro on March 15 at the Rushing Hotel. Mrs. A. J. Mooney presided. Mrs. B. A. Deal of Statesboro gave the address of welcome, Mrs. Julian Quattlebaum of Savannah responding.

Guests introduced were: Mrs. Eustace A. Allen, Atlanta, president-elect of State Auxiliary; Mrs. J. L. Nevil, Metter, State chairman of Hygeia; Mrs. Ross Brown, Atlanta, State Health Film chairman; Mrs. Cleveland Thompson, Millen, state recording secretary; Mrs. Lee Howard, Savannah, past president of the First District Auxiliary, and Mrs. B. T. Beasley, Atlanta.

Dr. Ross Brown, State Department of Public Health, spoke on "What Is Happening on the Venereal Disease Control Front" and Mrs. Eustace A. Allen spoke on "Organization." "Being Clinicked," a humorous reading, was given by Mrs. Chas. Usher, of Savannah. Mrs. Cleveland Thompson talked of the Cancer Control Program of the Womans' Field Army. Nominating committee appointed to report at July meeting is Mrs. J. L. Nevil, Mrs. J. E. Mercer and Mrs. Lehman Williams.

#### WARNS AGAINST TYING OFF EXTERNAL CAROTID ARTERY

Only the external carotid artery (the principal artery of the neck) should be tied off for otherwise uncontrollable profuse nasal hemorrhages. J. L. FETTERMAN, M.D., and W. H. PRITCHARD, M.D., Cleveland, warn in *The Journal of the American Medical Association* for April 8.

Their warning is based on a case in which not only the left external but also the left internal carotid artery was tied off. Following this ligation or tying off, convulsions, impairment of intelligence, defection in the understanding of the written or spoken word, numbness of the left side of the body, and one-sided paralysis resulted. Insufficient blood supply on the left side of the brain was the chief cause of these symptoms.

The American Association of Physicians and Surgeons will hold its next annual meeting with the American Conference on Occupational Diseases and Industrial Hygiene at Hotel Statler, Cleveland, Ohio, June 5-8, 1939. A program of timely interest and importance will be presented by outstanding speakers.



## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

### SUB-CLINICAL TYPHOID FEVER AS THE CAUSE OF A MINOR OUTBREAK\*

This is a report of six cases of typhoid fever which occurred on one dairy route. This dairy supplied raw sweet milk, buttermilk, and butter to twenty-two families in DeKalb County, but did not have a permit for the distribution of sweet milk. These six cases were traced to two mild cases of typhoid fever occurring in the family connected with the dairy. Of the twenty-two families served by this dairy, only three families used raw sweet milk. There were three members of the first family, two of whom contracted typhoid fever; three members of the second family, all of whom contracted typhoid fever; and of the three members of the third family, only one member contracted typhoid fever, an elderly invalid lady for whom the milk was purchased. In the nineteen other families who bought only butter and buttermilk, there was no typhoid fever. None of the families were protected by typhoid vaccine. The onset of the illness in these six persons was within a period of seven days, five on May 10, 1938 and one on May 17, 1938.

The dairy was contacted on May 30, 1938 and it was found that one member of the family had been sick in bed for two days, May 24 and May 25, 1938, but at the time of the visit was working in the field. There was no history of any other illness in the family. The family physician sent a specimen of blood to the State Department of Public Health Laboratory on May 25, 1938, which was reported negative on May 29, 1938.

In spite of the fact that no definite typhoid history was obtained, it was necessary to rule out typhoid fever in all the members of the family connected with the dairy. There were two reasons for doing this: First, that an active case of typhoid fever might be present but not clinically recognized; second, that a chronic carrier could exist due to typhoid fever which had not been clinically recognized in the past. Therefore, a series of feces cultures was obtained from the six members of the immediate family. Cultures from two of these were positive for *B. typhosus*, the remainder were negative.

Due to the positive feces cultures which were obtained on these two members of the family, and because no history of any acute illness could be obtained on one and a history

of a mild illness on the other, the following was assumed: That these two were either ambulatory cases of typhoid fever at some time in the past and were now chronic carriers, or were at this time ambulatory active cases. It was determined that the latter was the case, because a second series of stools which were cultured at a later date proved to be negative throughout. Therefore, it is obvious that these two were ambulatory cases of typhoid fever which would never have been recognized if not for the unfortunate occurrence of the six cases on their dairy route.

The conclusions which were reached by this investigation show us once again these facts:

1. That typhoid fever is not of a necessity an illness associated with acute symptomatic manifestations.
2. That repeated laboratory examinations are often necessary in order to establish a definite diagnosis in questionable cases.
3. That raw milk is a good medium for transferring typhoid germs from one human being to another.
4. That in this instance buttermilk and butter apparently destroyed the typhoid germs in the fermentative processes.
5. That mild, undiagnosed cases of typhoid fever are an important factor in the spread of the disease.

J. R. EVANS, M.D.,

JOHN M. WALTON, M.D.

A. WILSON BROWN, M.D.

\*This report of an outbreak of typhoid fever is of particular interest because there was no known cause to which these unfortunate people had been exposed. This should be a warning to the profession that we should suspect typhoid fever, even though the symptoms may not be pronounced, and make the necessary tests and other investigation to prevent the spread of the diseases to other people.

### WANTS APPLICANTS FOR OBSTETRIC AND GYNECOLOGIC DEPARTMENTS

The Department of Obstetrics and Gynecology, University of Georgia School of Medicine, Augusta, Ga., will consider applicants for assistant residency from July 1, 1940 to July 1, 1941, from Georgia physicians wishing to specialize in these subjects who have been in practice from 1 to 5 years. If interested, write for application blank from Chairman of department. A personal interview would be desirable.



## NEWS ITEMS

THE GEORGIA MEDICAL SOCIETY, Savannah, met on March 14. Dr. S. C. Lynn read a paper entitled, *Bronchiectasis and Presented Cases*; the discussion was led by Dr. John L. Elliott and Dr. W. A. Cole. Dr. L. M. Freedman reported a case, *Breast Amputation by Escharotic Methods*. Dr. L. J. Hahne showed a sound moving picture entitled, *The Diagnosis and Treatment of Syphilis*.

THE DOUGHERTY COUNTY MEDICAL SOCIETY, with others interested in Group Hospitalization, held a conference in Albany on the evening of February 20. Dr. H. M. McKemie explained the hospitalization plan. Dr. J. M. Barnett and Dr. W. B. Buckner represented the Medical Society.

DR. HUGH J. BICKERSTAFF, Atlanta, Georgia Department of Public Health, spoke before a meeting of the Columbus Kiwanis Club, March 7, on *Maternal Mortality and Infant Welfare*. Dr. Frank Schley, Columbus, introduced Dr. Bickerstaff.

DR. WM. L. FUNKHOUSER, Atlanta, past president of the Georgia Pediatric Society, was elected chairman of the Medical Advisory Board of the Family Welfare Society; Dr. Mason I. Lowance, vice-chairman. Other physicians elected to the board are: Dr. Wm. Willis Anderson, Dr. Taylor S. Burgess, Dr. Edgar Boling, Dr. Jas. N. Brawner, Jr., Dr. M. K. Bailey, Dr. L. Minor Blackford, Dr. Amey Chappell, Dr. Jas. P. Hanner, Dr. Walter R. Holmes, Dr. Wm. H. Kiser, Dr. George F. Klugh, Jr., Dr. R. H. Oppenheimer, Dr. J. D. Martin, Jr., Dr. Joseph C. Masee, Dr. M. Hines Roberts, Dr. W. A. Smith, Dr. C. W. Strickler, Jr., Dr. John R. Walker, Dr. Richard B. Wilson, Dr. Joseph Yampolsky, Dr. W. W. Young, and Dr. Zach Jackson.

DR. A. J. WARING, Savannah, was a guest speaker before the annual meeting of the Southern Society of Orthodontists in Savannah, March 5-7.

DR. CLARENCE DUNBAR HART, formerly of Newberry, Michigan, was elected Chatham County-Savannah health officer and assumed his duties on April 1. Dr. C. F. Holton is a member of the Savannah City Council and chairman of the Committee on Health.

DR. EUGENE E. MURPHEY, Augusta, spoke before a meeting of the Augusta Junior Chamber of Commerce, February 24. Dr. Murphey stressed the importance of early diagnosis and treatment of tuberculosis.

DR. J. R. EVANS, Decatur, DeKalb county commissioner of health, recently spent several days in Brunswick investigating and studying health activities in Glynn county.

THE FOLLOWING PHYSICIANS of Savannah have been appointed to serve on the governing board of the Hospital Service Association of Savannah: Dr. T. P. Waring, Dr. J. K. Quattlebaum, Dr. L. J. Hahne, Dr. M. J. Egan, Dr. R. V. Harris, Dr. Jabez Jones, Dr. J. K. Train, and Dr. Lawrence Lee.

DR. J. M. BYNE, JR., Waynesboro, was elected by the Board of Regents of the American College of Physicians to associate fellowship.

DR. R. F. SLAUGHTER, Augusta, spoke before a meeting of the Augusta Kiwanis Club February 27 on *Brain Surgery*.

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall, Macon, March 21. Dr. Thomas Harrold illustrated a number of malignant cases with colored lantern slides.

THE FIRST DISTRICT MEDICAL SOCIETY met at Statesboro, March 15. Personnel of program committee follow: Dr. L. J. Hahne, chairman, Dr. W. O. Bedingfield and Dr. D. J. McCarthy, all of Savannah. *Address of Welcome*, Dr. R. L. Cone, Statesboro; *Response to Address of Welcome*, Dr. J. K. Quattlebaum, Savannah. Titles of papers and addresses on scientific program were: *Treatment of Fractures of Femur*, Dr. H. T. Compton, Savannah; *Some Common and Uncommon Skin Diseases*, Dr. Samuel F. Rosen, Savannah; *Coronary Thrombosis*, Dr. S. P. Sanford, Savannah; *Intestinal Obstruction Caused by Gall Stones—Report of Case*, Dr. Q. A. Mulkey, Dr. A. P. Mulkey and Dr. J. J. Folk, all of Millen; *The "Chronic Cold" in Childhood*, Dr. A. J. Waring, Savannah; *Atypical Signs and Symptoms in Perforated Peptic Ulcer*, Dr. John Mooney, Jr., Statesboro; *Pneumonia—Illustrated with Sound Picture*, Dr. L. J. Hahne, Savannah; *Intensive Treatment of Early Syphilis*, Dr. J. S. Howkins, Savannah; *Complicated Colles and Potts Fractures*, Dr. R. C. Franklin, Swainsboro.

DR. JOHN L. ELLIOTT, Savannah, was the principal speaker on the program of the H. G. H. Society at Savannah, March 5.

DR. CHAS. C. HARROLD, Macon, spoke before a meeting of the Macon Woman's Club at the Christ Church Parish House, March 10, on *Medicine Meets the Challenge*.

DR. EDGAR H. GREENE, Atlanta, was appointed chairman of the professional group for the 1939 Roll Call of the Atlanta Chapter of the American Red Cross.

DR. J. GEORGE BACHMANN, Emory University, has been elected vice-president of the Jefferson Medical College, Philadelphia, Alumni Association to represent Georgia.

DR. G. O. GUNTER, formerly of Blakely, has moved to Biloxi, Mississippi.

DR. T. V. WILLIS, Brunswick, entertained the members of the Glynn County Medical Society at a dinner on March 7 at the Half Moon.

DR. W. W. BROWN, Athens, spoke before a meeting of the Clarke County Woman's Auxiliary at the Civic Hall, March 10.

DR. EDGAR H. GREENE, Atlanta, spoke at the dedication exercises of the Our Lady of Perpetual Help Cancer Home which has just opened on Washington Street, Atlanta.

THE STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held on March 9. Subjects of mortalities discussed were: *Lobar Pneu-*

*monia and Acute Hepatitis*, Dr. C. H. Paine and Dr. J. R. Walker; *Chronic Cholecystitis and Cholelithiasis*, Dr. J. D. Manget; *Hypertension and Arteriosclerosis*, Dr. Frank K. Boland and Dr. Kells Boland; *Prostatic Obstruction and Cardio-Vascular Renal Disease*, Drs. Ballenger, McDonald and Coleman; *Ruptured Appendix and Peritonitis*, Dr. H. M. S. Adams; *Acute Appendix, Hypertension and Cerebral Hemorrhage*, Drs. Frank and Kells Boland; *Intestinal Obstruction*, Dr. H. H. Askew and Dr. Jack M. Levin; *Acute Gangrenous Colitis, Mesenteric Thrombosis and Peritonitis*, Dr. Clyde L. Crawford; *Cystic Ovary, Sub-Acute Appendix, Bilateral Almost Complete Atelectasis of the Lungs—Autopsy*, Dr. J. C. Ivey; *Intestinal Obstruction, and Cirrhosis of the Liver*, Dr. H. M. S. Adams.

THE STAFF MEETING of Grady Hospital, Atlanta, was held on March 14. Dr. H. S. Alden and Dr. P. H. Nippert presented and discussed a case, *Keratoderma Blennorrhagica* (Gonorrhoea Keratosis); Dr. George Fuller and Dr. E. G. Jones discussed a case of *Recurrent Marginal Ulcer of the Stomach*.

IF INTERESTED in a location to practice in and around a country village, write the secretary-treasurer. (Some industries and excellent agricultural section.)

IN THE DRIVE for subscriptions by the state and national Woman's Auxiliaries to Hygeia, the health magazine published by the American Medical Association, Duval County, Arkansas, won the prize of \$50; Jacksonville, Florida, won first honorable mention, and our local Auxiliary, the Baldwin County Auxiliary, was given second honorable mention.

THE GOOD SAMARITAN CLINIC, Atlanta, sponsored a lecture by Dr. D. K. Kitchens of the Department of Clinical Endocrinology of Parke, Davis & Company, Detroit. 'Dr. Kitchens spoke on *Recent Advances in Endocrinology*.

THE MITCHELL COUNTY MEDICAL SOCIETY meets bi-monthly on third Thursdays with meetings rotated between Camilla and Pelham.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on March 28. Dr. R. F. Slaughter, Augusta, read a paper on *Cranial Cerebral Trauma*; the discussion was led by Dr. C. F. Holton and Dr. W. A. Norton. Dr. S. F. Rosen reported a case, *Bazin's Disease*.

THE MACON MEDICAL SOCIETY of Bibb County met on April 4. Dr. H. G. Weaver reported *Clinical Cases*.

THE EMORY UNIVERSITY HOSPITAL staff met on April 3. Dr. E. S. Wright presented patient; Dr. A. U. Hauck presented patient. Physicians on program to lead the discussion were: Dr. C. W. Strickler, Jr., Dr. Walter Holmes, and Dr. J. F. Denton.

DR. W. D. MIXSON and DR. LEO SMITH entertained the members of the Ware County Medical Society at the Phoenix Hotel, Waycross, April 5. Dr. T. J. Ferrell read a paper entitled, *Ruptured Peptic Ulcer*.

THE COLQUITT COUNTY MEDICAL SOCIETY met at Moultrie, March 17. Dr. J. A. Redfearn, Albany, councilor for the Second District, read a paper on *The Nervous Patient*. The City Council of Moultrie was asked in a resolution to pass an ordinance to require all public servants to obtain health certificates.

#### COUNTIES REPORTING FOR 1939

##### *Houston-Peach Counties Medical Society*

The Houston-Peach Counties Medical Society announce the following officers for 1939:

President—J. W. Story, Perry.  
Vice-President—H. E. Evans, Perry.  
Secretary-Treasurer—R. L. Cater, Perry.  
Delegate—J. W. Story, Perry.

##### *Jefferson County Medical Society*

The Jefferson County Medical Society announces the following officers for 1939:

President—C. Roy Williams, Wadley.  
Vice-President—V. L. Bryant, Bartow.  
Secretary-Treasurer—S. T. R. Revell, Louisville.  
Delegate—S. T. R. Revell, Louisville.  
Alternate Delegate—J. J. Pilcher, Wrens.

##### *Rockdale County Medical Society*

The Rockdale County Medical Society announces the following officers for 1939:

President—P. J. Brown, Conyers.  
Vice-President—P. S. Smith, Conyers.  
Secretary-Treasurer—H. E. Griggs, Conyers.  
Delegate—H. E. Griggs, Conyers.

##### *Gordon County Medical Society*

The Gordon County Medical Society announces the following officers for 1939:

President—W. R. Barnett, Calhoun.  
Secretary-Treasurer—Z. V. Johnston, Calhoun.  
Delegate—Z. V. Johnston, Calhoun.

##### *Monroe County Medical Society*

The Monroe County Medical Society announces the following officers for 1939:

President—W. J. Smith, Juliette.  
Secretary-Treasurer—G. H. Alexander, Forsyth.

##### *Grady County Medical Society*

The Grady County Medical Society announces the following officers for 1939:

President—A. B. Reynolds, Cairo.  
Secretary-Treasurer—J. V. Rogers, Cairo.  
Delegate—J. V. Rogers, Cairo.

##### *Cobb County Medical Society*

The Cobb County Medical Society announces the following officers for 1939:

President—Geo. O. Allen, Marietta.  
Vice-President—Murl M. Hagood, Marietta.  
Secretary-Treasurer—Martin Van B. Teem, Marietta.  
Delegate—H. B. Terry, Acworth.

##### *Spalding County Medical Society*

The Spalding County Medical Society announces the following officers for 1939:

President—T. G. Smaha, Griffin.  
Vice-President—H. J. Copeland, Griffin.

Secretary-Treasurer—J. T. Leslie, Griffin.  
 Delegate—W. C. Miles, Griffin.  
 Alternate Delegate—M. M. Head, Zebulon.

*Stewart-Webster Counties Medical Society*

The Stewart-Webster Counties Medical Society announces the following officers for 1939:

President—J. M. Kenyon, Richland.  
 Secretary-Treasurer—A. R. Sims, Richland.

*Wilcox County Medical Society*

The Wilcox County Medical Society announces the following officers for 1939:

President—L. A. Williams, Abbeville.  
 Vice-President—S. R. Mitchell, Pineview.  
 Secretary-Treasurer—J. D. Owens, Rochelle.  
 Delegate—J. D. Owens, Rochelle.

*Warren County Medical Society*

The Warren County Medical Society announces the following officers for 1939:

Secretary-Treasurer—A. W. Davis, Warrenton.  
 Delegate—H. B. Cason, Warrenton.

*Rabun County Medical Society*

The Rabun County Medical Society announces the following officers for 1939:

President—J. C. Dover, Clayton.  
 Secretary-Treasurer—J. A. Green, Clayton.

*Turner County Medical Society*

The Turner County Medical Society announces the following officers for 1939:

President—H. M. Bellflower, Sycamore.  
 Vice-President—W. L. Story, Ashburn.  
 Secretary-Treasurer—J. H. Baxter, Ashburn.

*Forsyth County Medical Society*

The Forsyth County Medical Society announces the following officers for 1939:

President—Marcus Mashburn, Cumming.  
 Vice-President—J. T. Brice, Flowery Branch.  
 Secretary-Treasurer—W. E. Lipscomb, Cumming.  
 Delegate—P. W. Tribble, Cumming.

*Lamar County Medical Society*

The Lamar County Medical Society announces the following officers for 1939:

President—D. W. Pritchett, Barnesville.  
 Vice-President—C. H. Willis, Barnesville.  
 Secretary-Treasurer—S. B. Traylor, Barnesville.  
 Delegate—J. A. Corry, Barnesville.

*Ben Hill County Medical Society*

The Ben Hill County Medical Society announces the following officers for 1939:

President—G. W. Willis, Ocilla.  
 Vice-President—J. E. Smith, Fitzgerald.  
 Secretary-Treasurer—L. S. Osborne, Fitzgerald.  
 Delegate—W. P. Coffee, Fitzgerald.  
 Alternate Delegate—W. D. Wilcox, Fitzgerald.

*Burke County Medical Society*

The Burke County Medical Society announces the following officers for 1939:

President—E. A. Barger, Waynesboro.  
 Vice-President—W. C. McCarver, Vidette.

Secretary-Treasurer—Abe J. Davis, Waynesboro.  
 Delegate—W. R. Lowe, Midville.  
 Alternate Delegate—H. F. Bent, Midville.

*DeKalb County Medical Society*

The DeKalb County Medical Society announces the following officers for 1939:

President—W. P. Smith, Decatur.  
 Vice-President—T. E. McGeachy, Decatur.  
 Secretary-Treasurer—Lawrence P. Matthews, Decatur.

*Dooly County Medical Society*

The Dooly County Medical Society announces the following officers for 1939:

President—E. B. Davis, Byromville.  
 Secretary-Treasurer—M. L. Malloy, Vienna.  
 Delegate—V. L. Harris, Pinehurst.

*Franklin County Medical Society*

The Franklin County Medical Society announces the following officers for 1939:

President—Stewart D. Brown, Royston.  
 Secretary-Treasurer—B. T. Smith, Carnesville.

*Stephens County Medical Society*

The Stephens County Medical Society announces the following officers for 1939:

President—W. B. Heller, Toccoa.  
 Vice-President—J. E. D. Isbell, Toccoa.  
 Secretary-Treasurer—C. L. Ayers, Toccoa.  
 Delegate—W. B. Schaefer, Toccoa.  
 Alternate Delegate—J. E. D. Isbell, Toccoa.

*Morgan County Medical Society*

The Morgan County Medical Society announces the following officers for 1939:

President—D. M. Carter, Madison.  
 Vice-President—J. H. Nicholson, Madison.  
 Secretary-Treasurer—W. C. McGeary, Madison.  
 Delegate—J. H. Nicholson, Madison.

*Wayne County Medical Society*

The Wayne County Medical Society announces the following officers for 1939:

President—J. A. Leaphart, Jesup.  
 Vice-President—J. L. Tyre, Screven.  
 Secretary-Treasurer—Guy V. Rice, Jesup.  
 Delegate—J. A. Leaphart, Jesup.  
 Alternate Delegate—T. G. Ritch, Jesup.

*Chattooga County Medical Society*

The Chattooga County Medical Society announces the following officers for 1939:

President—R. E. Talley, Trion.  
 Vice-President—Mary Margaret McLeod, Trion.  
 Secretary-Treasurer—Lee H. Battle, Jr., Trion.  
 Delegate—C. E. Magoun, Trion.  
 Alternate Delegate—Paul H. Pernwerth, Trion.

*Clarke-Madison-Oconee Counties Medical Society*

The Clarke-Madison-Oconee Counties Medical Society announces the following officers for 1939:

President—W. H. Cabaniss, Athens.  
 Vice-President—Geo. W. Kelly, Carlton.  
 Secretary-Treasurer—Harry E. Talmadge, Athens.  
 Delegate—W. D. Gholston, Danielsville.  
 Alternate Delegate—Linton Gerdine, Athens.



## SCIENTIFIC EXHIBIT

## ATLANTA SESSION—APRIL 25-28

*The Effect of Injections of Testosterone Propionate upon the Skeletal Growth of White Rats of Both Sexes.*

J. K. Fancher, Atlanta.

*Fundus Photographs.*

Grady E. Clay and J. Mason Baird, Atlanta.

*Diabetes Mellitus. Loaned by the George F. Baker Clinic of the New England Deaconess Hospital and the Metropolitan Life Insurance Company.*

Presented by Harold Bowcock, Atlanta.

*Aids in the Management of Diabetes.*

Harold Bowcock, Atlanta.

*Bio-Photometric Determination of the Vitamin A Status of Diabetic Patients.*

Herschel Crawford and Harold Bowcock, Atlanta.

*Malignancies of the Gastro-Intestinal Tract, Genito-Urinary Tract, Thyroid and Ovaries.*

A. J. Ayers and W. F. Lake, Atlanta.

*Biliary Tract Surgery.*

Lon Grove and Kenneth R. Bell, Atlanta.

*Diseases of the Skin (Colored Pictures).*

Howard Hailey and Hugh Hailey, Atlanta.

*Orthopedic Conditions.*

Thomas P. Goodwyn and Walker Jernigan, Atlanta.

*Improvised Gynecologic Apparatus: (1) Aspiration Curette, (2) Apparatus for Construction of Artificial Vagina, (3) Apparatus for Application of Heat to Pelvis, (4) An Apparatus for Utero-Tubal Insufflation.*

George A. Williams, Atlanta.

*Causes of Low Back Pain with Sciatica.*

Lawson Thornton and Calvin Sandison, Atlanta.

*Sub-Acute Respiratory Infections.*

Wm. Willis Anderson, Atlanta.

*Ventricular Air Studies in Brain Tumors.*

E. F. Fincher, Atlanta.

*Benign Tumors of the Skin.*

Jack W. Jones and Herbert S. Alden, Atlanta.

*Nasal Accessory Sinus Infection in Children.*

Taylor Burgess, Atlanta.

Cancer Commission of the Medical Association of Georgia.

*Medical Art in Medicine—Illustrations from Cases.*

Miss Lillian J. Kennedy, Emory University.

*Illuminated Four-Sided Display.*

Georgia Radiological Society.

*General Educational Exhibit.*

Georgia Department of Public Health.

*County-Wide Malaria Control in Georgia.*

Georgia Department of Public Health, Division of Malaria Investigations.

*Three Years' Study of Appendectomies in the CCC; A Mortality Rate of 0.78 per cent in 1,781 Cases.*

Fred F. Rudder, Atlanta.

*Principles Involved in the Treatment of Congenital Clubfeet.*

J. Hiram Kite, Atlanta.

*Successful Surgical Management of Intestinal Malformations in a Newborn Infant.*

D. Henry Poer, Atlanta.

*Presentation of Common Disorders of Extremities Due to Peripheral Vascular Conditions.*

Peripheral Vascular Clinic, Piedmont Hospital, Atlanta.

*Common Thyroid Disorders Seen in Non-Endemic Area.*

Junior League Thyroid Clinic, Grady Hospital, Atlanta.

*Hypoparathyroidism without Tetany—Report of Ten Cases.*

D. Henry Poer and George L. Lewis, Atlanta.

EXHIBIT FROM THE UNIVERSITY OF GEORGIA  
SCHOOL OF MEDICINE, AUGUSTA

*A Thirteen Day Human Embryo.*

Joseph Krafka, Jr., Augusta, Department of Microanatomy.

*The Torpin-Holmes Roentgenpelvimeter.*

L. P. Holmes and Richard Torpin, Augusta; Departments of Roentgenology, Obstetrics and Gynecology.

*The Newer Venereal Diseases.*

Richard Torpin, E. S. Sanderson, E. R. Pund, Robert Greenblatt, R. Dienst and Fred Barnes, Augusta; Departments of Obstetrics, Gynecology, Bacteriology, Pathology and the U. S. Public Health Service.

*Ovarian Tumors.*

E. R. Pund, E. S. Cardwell, Robert Greenblatt, Augusta; Department of Pathology.

*The Early Faculty of the University of Georgia School of Medicine.*

Cecelia C. Mettler, Augusta; Department of Medical History.

## MOVING PICTURES

*An Attempt to Salvage a Case of Extensive Carcinoma of the Scalp with Destruction of the Skull from Frontal Sinuses to External Occipital Protuberance.*

T. C. Davison and Fred F. Rudder, Atlanta.

*The Diagnosis of a Case of Friedreich's Ataxia.*

Martin Myers, Atlanta.

*Benign and Malignant Tumors of the Skin.*

Philip H. Nippert, Atlanta.

*Radical Mastoid Operations with Skin Graft.*

Arthur G. Fort and Lester A. Brown, Atlanta.

*Diseases of the Larynx.*

Russell Burke and W. B. Armstrong, Atlanta.

*Technic of Gastroscopy.*

Crawford Barnett, Atlanta.

*Treatment of Congenital Clubfeet.*

J. Hiram Kite, Atlanta.

*Total Thyroidectomy for Nodular Toxic Goiter (in colors).*

D. Henry Poer, Atlanta.

### THE MEDICAL "TRUST"

Considering the somewhat unrestrained condemnation of the medical profession which emanated from the Department of Justice last summer, the indictment of the American Medical Association by a federal grand jury, comes as no startling surprise. Thurman Arnold, assistant attorney general, forecast the procedure. He said, with reference to closing Washington hospitals to certain doctors affiliated with a group hospitalization plan, that "it is an attempt on the part of one group of physicians to prevent qualified doctors from carrying out their calling."

In the legal eye of the assistant attorney general this was a perfect example of a combination in restraint of trade, punishable under the Sherman anti-trust act. He considered it his duty, presumably, to dissolve the "trust" and punish those responsible for its operation. Hence the indictment.

But when the matter is examined in the cold light of common sense, with all the political fog removed, the premise upon which the indictment is based is absurd. The American Medical Association is no more of a trust, than Mr. Arnold's American Bar Association, or the national organization of architects, or, indeed, the American Federation of Labor, all of which have prescribed rigid rules of practice.

If a lawyer, or an architect, or a plumber violates the rules of his organization he is chased out at the first meeting, just as a doctor is expelled for practices considered unethical in medicine.

Unfortunately for the idea of a greater expansion of medical services among the people, many shallow-thinking politicians have jumped to the conclusion that a simple appropriation of \$850,000,000 by the federal government will fill the bill. They labor under the delusion that money can buy anything; that a well-equipped office—beautiful furniture, overstuffed chairs and shiny new instruments—means a well equipped doctor.

The profession of medicine, by its very nature, is a monopoly. It couldn't very well be otherwise. It requires at least eight years, from the time he graduates from prep school, to fit a man merely to start "practicing." Additional years are required to make him into a "doctor." So the standards of practice naturally ascend to high plane. It requires never-ceasing vigilance to maintain these standards. If they were altered to fit some particular social theory, the profession would soon be over-run with all manner of smooth-tongued quacks.

It is not denied there is room for broadening and improving the medical care of all the

people. The doctors, as a whole, are aware of this. They are willing to co-operate. They are co-operating, on a broad front, and in a practical way. The nature of the extensions sought, however, are such as should call for making haste slowly. It must first be decided just what is to be done.

Therefore the indictment under the assumption that a certain pet scheme in Washington to revolutionize medical practice is everything to be desired will, in all probability, do more to retard than to hasten the movement.

Editorial, The Constitution, Atlanta, Dec. 25, 1938.

### CANCER: ITS EARLY RECOGNITION\*

The Cancer Commission has brought to the attention of the members of the Association certain well known and important facts concerning the early diagnosis of cancer. We shall again emphasize the importance of early recognition and treatment of this disease. The fact that the death rate can be lowered only by early diagnosis and early treatment cannot be disputed.

*The fate of the cancer patient depends upon the action taken by the first physician consulted.* The fact that the physician has been responsible for delay in the diagnosis and proper treatment in nearly 35 per cent of the cases is a serious indictment of the knowledge and ability of the medical profession. It is, therefore, important that the rules laid down in this *Journal*, which described the most frequent mistakes made by physicians, be followed. It is imperative that they do not neglect careful examination of patients complaining of sores or ulcers which have not healed, and that they carefully examine women's breasts. Physicians should carefully examine women who are bleeding irregularly for pelvic disease and in doubtful cases obtain a biopsy of the tissue, or refer the patient to the proper consultant in an effort to obtain a correct diagnosis. If this outline of diagnosis is followed it should materially reduce the failure of the physician to recognize a malignancy from the present high of 35 per cent to a possible 20 or 25 per cent, and perhaps lower. The Commission recognizes that there are certain lesions which are difficult to diagnose, and it requires the best skill of the medical profession to reduce these unrecognized cases to a minimum.

\*Published by the Cancer Commission of the Medical Association of Georgia.

The staff meeting of Grady Hospital, Atlanta, was held on April 11. Dr. Dan Elkin and Dr. Raymond Harris reported a case, *Cholecystectomy for Typhoid Carriers*; Dr. Dan Elkin and Dr. J. A. Greene reported a case, *Splenectomy for Thrombocytopenic Purpura*.

## BOOK REVIEWS

*Trauma and Internal Disease*, by Frank W. Spicer, A.B., M.D., F.A.C.P. Cloth. Pp. 593. Philadelphia: J. B. Lippincott Company. 1939. This book is a study of the causation and aggravation of disease by injury. "Owing to the fact that the causal relationship of disease and injury has not always been clear, some injured persons may not have had the proper care at the time of the accident, and may not have received proper consideration of just claims, while others, and many of them, have unfairly received awards, partially because the physician has been unable to offset exaggerated or malingering contention." This, in the author's words, is the reason for such a presentation—a basis for medical and legal evaluation of trauma. Facts are here substituted for opinions, and views that have heretofore been too readily accepted as medical testimony are shown to have no real or scientific basis.

This volume is in no sense a text on traumatic surgery. It is invaluable to the industrial surgeon but should be no less valuable to the general practitioner as a guide in the investigation of trauma, or the possibilities of trauma, as a cause of disease and disability. Trauma should always be cautiously and tentatively advanced and this work attempts to show why, and in what circumstances.

EDGAR BOLING, M.D.

*The Pathology of Diabetes Mellitus*, by Shields Warren. Second edition, Philadelphia, Lea and Febiger, 1938. 246 pages, 86 illustrations and 3 color plates. \$4.75.

This important monograph represents a continuation of those studies of Dr. Warren which resulted in the first edition eight years earlier. The material for the first edition was secured from the study of the pathology of the diabetic organism during the pre-insulin era and the first eight years of insulin. To that data, has been added in the second edition, the knowledge of the second eight years of insulin therapy. The earlier management of diabetes with its severe undernutrition, partial starvation, acidosis and frequent deaths in coma often revealed a picture of violent and rapid cause and effect, frequently complicated by the tissue changes of avitaminosis. The more normal modern diet has become feasible through the availability of protamine zinc insulin and solution of zinc-insulin crystals. Better food and better insulin control have corrected much of the abnormal tissue metabolism of diabetes, thus lengthening the life of the patient. Now, more evidences of the aging process enter the picture of the pathology of diabetes. Thus, as our therapeutic ideas change, so must our efforts which are directed at the prevention of the newer pathology. This means that the new edition modifies and supplements that knowledge which we gained from the earlier monograph.

The gross and microscopic study of diabetic tissues is described according to individual organs, to systems (reticulo-endothelial system, cardio-vascular system, nervous system) and the distribution of specific alterations in structure and function. The results are expressed in terms of an extensive literature in addition

to the author's wide experience. The comparison with non-diabetic tissue changes is emphasized throughout the writing.

Sections dealing with the relationship between diabetes and glands of internal secretion other than the pancreas, a section on technique and a section on the medico-legal aspects of the disease add value to the book.

One may hope that the next edition will contain a section on the associated changes resulting from nutritional deficiency, a section on chemical methods and a comparative summary of those changes found in diabetic and non-diabetic tissues.

Since many of the most serious avoidable complications and sequelae of diabetes appear insidiously over a period of years and since such changes are usually irreversible, it behooves the conscientious physician to become familiar with the end results of the disease which he is treating. This monograph provides the means. The foreword by Dr. E. P. Joslin provides the stimulus.

HAROLD BOWCOCK, M.D.

## MEMBERSHIP

To the Editor:

I was very active in my younger days. Acted secretary many years, calling on the physicians for their dues several years when we failed to organize the county, so anxious was I to support our State Journal and continue my subscription to the *Journal of the American Medical Association*.

I regret so much my inability to participate in the county, district and State meetings. Nothing would give me more pleasure than meeting the physicians of the State and knowing them as I once did and enjoying their good fellowship, but with 78½ years today resting on my venerable head and 7 attacks of angina pectoris to my credit during the last four years, I am forced to be very quiet, not even attending church except over the radio. I do office practice and visit patients when able to do so.

You nor the profession can ever know how much I appreciate being placed on the honorary list and being able to read the *Journal* each month which I so much enjoy. I am proud of it. To me it is a splendid medical monthly. You will please permit me to congratulate you on your work as editor. Have been reading it since 1892.

Newnan, Ga.

A. A. BARGE, M.D.

March 28, 1939.

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### MODERN TRENDS OF MEDICAL PRACTICE\*

GRADY N. COKER, M.D.  
*Canton*

Were I to be granted a single wish in rising to address this assembly it would be that each of you today should be as impressed as I have been throughout the past year with the tremendous responsibilities placed upon us.

We doctors are servants of humanity and our duties can be best accomplished by organization, cooperation and education through such meetings as this.

My next word, naturally, is one of appreciation to you for the honor that you have bestowed upon me. I want to thank you members of the Medical Association of Georgia for the confidence you have placed in me by electing me to act as your executive.

Where and when I can, I desire to help hold fast to the traditions of the sound science and the sensible practice of medicine in Georgia. This is a great state but one in need of confidence in herself and her people. She can call upon her doctors in the knowledge that she will find them able and willing.

I enlist your further enthusiastic participation in organized medicine. If we stand together we can accomplish anything. Divided by silly differences we shall surely fall victim to practices and policies that will blight the opportunities of the wonderful doctor of tomorrow. He is our responsibility. We must not fail him.

Few people realize the important part medicine has played in shaping civilization.

In the prehistoric days, man was not, as some people believe, a carefree creature, living a free and idealistic life in the midst of an

abundant Eden. By day, he slunk through the rough woods in search of food, in constant fear of death by stronger men and beasts. At night he hid from unseen terrors, and in his nakedness he shivered in the cold dark. Injured, he crawled to his lair to die of hunger or be murdered by ruthless enemies.

A boy born about the time the first English settlers came to this country could expect to live only 19 years. With the progress of medicine this expectancy has been increased. Nineteen years have been added to the lifespan in our time for the average age at death in Georgia today is 61 years.

Medical science will march on. Disease after disease will be conquered, the public will become educated to avoid sickness; the profession will keep abreast of the march of medical science; the lifespan will continue to lengthen; and all this will increase happiness, prosperity and the joy of living.

The achievements of the medical profession entitle us to the responsibility of conserving and improving the nation's health; our education, experience and ideals fit us to lead in this undertaking. We must not falter.

I want to make a brief statement about The National Health Conference held in Washington, D. C., last July. That conference was called to hear the report of a committee.

About three years ago the President's Interdepartmental Committee to Coordinate Health and Welfare Activities charged its Technical Committee on Medical Care to survey the health and medical care of the people of the United States. In brief this Committee reported as follows:

In spite of the scientific progress during recent years, the utilization of health and medical services has been irregular and uneven. There are serious inadequacies everywhere in the health services of this country and the deficiencies are acute in many areas

\*President's address before the ninetieth annual session of the Medical Association of Georgia, Atlanta, April 27, 1939.

and among large groups of the population. Unaided, states and local communities cannot deal with their existing problems.

Hospital accommodations and the scheme of organization were found ill adapted to the varying needs of people living under different social, economic, and geographic circumstances. In hospitals offering general care, the percentage of beds that must be supported through fees from patients is out of proportion to the income distribution of the population, hence many of the full-pay beds are empty much of the time. Conversely, there are too few low-cost and free beds to satisfy needs; those already provided are concentrated in centers of wealth and population. Some 1,300 counties have no hospitals, and only 423 counties have local tax-supported facilities. Thus the rich and the poor of large cities secure proportionately more service than those of moderate means; rural people generally have less hospital care than those residing in large cities; and admission of the poor to hospital beds in rural areas and the smaller towns is confined very largely to emergency surgery.

The Committee therefore recommended federal participation in a national health program, giving special consideration as to how the federal government can best discharge its responsibilities in the field of health conservation, while leaving due and ample place for the work of state and local governments and for voluntary action.

The proposed program calls for extension of our health services into all parts of the United States, for an expansion of the program to fill gaps in existing services, for co-operation of public agencies with the medical, dental, nursing and social service professions to make sure that medical and related services are available to mothers and children of all income groups and in all parts of the United States.

The success of the proposed program will depend on the full cooperation of physicians and others involved in medical services, of public and private hospitals and clinics, of health departments and welfare agencies. No one plan will meet the diverse needs of the states, and considerable latitude must be allowed in the details of state and local programs. But the problems of executing the

program must not be permitted to obscure the need for federal aid in securing to these needy citizens their rights of health.

The survey of health conditions by this national committee had been anticipated in Georgia. Our House of Delegates had recommended that such a survey be made in this State in 1933, 1934 and 1935 but was unable to finance the project. Finally, with funds secured from federal sources, Dr. J. E. Paullin and his committee, including Drs. C. W. Roberts, L. M. Gaines, T. F. Abercrombie and E. D. Shanks initiated the survey in December, 1935. The work was begun under the supervision of Dr. D. N. West, U.S.P.H.S. About 750 families in each of sixteen predominantly rural counties in different parts of the State were studied. There were 12,107 families and 53,648 individuals included in the study, about 60 per cent white, 40 per cent colored. Strangely enough, the death rate for the year involved in the study was only 5.58 per thousand as against 11.3 per thousand for the United States at large. The Committee found that hospital care was all but out of the question for most of the families studied. However, one must note that only twice during the preceding year had one of the poor persons called a doctor without getting him, and on those two occasions the doctor had a valid excuse for not coming.

We must constantly seek methods of bettering conditions of public health such as prevail in Georgia. There is no doubt of the need for improvement all over the country. Even at the height of prosperity between 1925 and 1929, only 36 per cent of the American people bought medical care, and only 16 per cent bought dental treatment. But statistics of depression show an abrupt decrease from even these low figures. The ravages of the past eight years of financial stringency are undermining the physical and mental health of many of our citizens. It is said that there are walking about numbers of Americans who cannot afford to pay for treatment of their incipient tuberculosis, early cancer, syphilis, or other maladies. Other persons are forced to ignore the slight coughs, weariness, pain, indigestion or loss of sleep, which may lead to serious ills in the future.



At the same time, ironically enough, there are idle doctors and dentists. According to the New York State Department of Health, thousands of persons in that state die each year because of lack of medical care; yet the presidents of the American Medical and Dental Associations tell us that there are too many doctors and dentists and that medical and dental colleges should curtail their enrollments! Patently there is something wrong in this situation! And the situation is becoming more acute. It is necessary that the medical and dental professions take the public into their confidence and evolve a plan for their mutual interest. Otherwise the practice of medicine may be thrown into the hands of the insurance companies and politicians, and this might turn out to be like jumping from the frying pan into the fire!

There is, in my opinion, at least one practical solution for this problem at the present time. It lies in the establishment of rural hospitals or health centers, with redistribution of doctors, and cooperative medicine. In this way medical men have a chance to forestall government control by taking the leadership in community medicine.

In recent months the press has been full of information regarding cooperative medicine. Much has been said and the impression given that this is an entirely new subject. As a matter of fact, it is very old. The well-meaning physician has always practiced cooperative medicine. He has at all times kept in touch with men who have specialized in the various branches of medicine and surgery. This does not mean of course that every time a patient confronts him with a sore throat he will refer him to an otolaryngologist. Such procedure would be carrying reference too far. In medicine, as in anything else, judgment must be used. People don't usually take shoes to a shoemaker to have him put in a pair of laces. That is nonsense! But, when shoes need soles and heels, the shoemaker is the one who should do the job. That is sense!

This plan of rural health centers would establish a system of treatment which would be controlled entirely by the doctors themselves. It would provide a work shop for our younger men thereby encouraging them to carry their services to the rural areas where

they are so sadly needed today. The public would derive from it a generous share of benefits produced by group effort.

Several physicians and dentists, let us say, each of them an expert in his own line, form a group for the coordination of their services in a rural hospital. While such physician may serve on a full time basis, he retains complete independence in his practice. Patients become the responsibility of the whole group but the personal relationship between patient and physician is established through one individual member of the clinic wherever possible. By pooling their resources they greatly reduce the overhead expenses of rent, nursing, telephone and laboratory bills. Through combined purchasing they achieve a big reduction in the cost of supplies. By means of these savings, they can reduce their fees materially. The fees are collected, pooled and administered by some business man in accordance with a pre-arranged plan formulated by the group. And the doctor, whose interest is in his patient rather than his fee, is relieved of the difficulties of business administration.

The public, able to avail itself of expert services at reduced fees comes to the rural hospital in increasing numbers. The plan would thus bring medical care to thousands now deprived of much needed treatment. The physicians likewise enjoy the benefits of increased practice. With a system of specialization worked out, in which each doctor does one particular type of work, greater efficiency within the hospital is produced. Thorough examination and diagnosis can be expected without the necessity of going from place to place to consult several specialists.

Apply this on a statewide or national basis. Imagine hundreds of small hospitals functioning in the rural areas of this country. On a nation-wide scale the plan would retain the best features of private medical system. It would leave the physicians in control of their profession. It would afford the patient his choice of physicians, the lack of which is regarded as a grave evil in the compulsory health insurance plan. It would preserve the beneficial doctor-patient relationship; yet it would obtain the greater efficiency possible in a properly administered system of public health. Both the profession and the public

would be benefited and protected, for there would be assured income for the doctors and assured care for the sick.

Here is a feasible suggestion: Take some of the money now being spent for the maintenance of our larger institutions and build and equip a hospital in reach of every citizen of our State just as we have built high schools. The buying power of such a system and the interchange of nurses and interns with the saving that would come from co-ordinated action, will easily reduce the cost of hospital care to a moderate amount for a patient's whole illness. The lay public should be made to shoulder part of the responsibility of such rural hospitals. County, state and federal governments should help finance such programs in rural areas financially unable to solve their own problems. After all, the medical care of the indigent is at least as much a function of the government as providing food and shelter.

Such a program for the care of medically indigent is now possible in Georgia. Two years ago THE MEDICAL ASSOCIATION OF GEORGIA advocated and secured the passage by the Legislature of an amendment to the Constitution to allow each county to levy a tax for the medical care, hospitalization and other expenses for those in need of treatment but unable to pay for it. This amendment was ratified by the voters of the State in the general election last November, and during the recent session of the Legislature the enabling act was passed. This is probably the most important piece of legislation sponsored and secured by organized medicine in Georgia for fifty years. The public needs further education so that it will be willing to tax itself sufficiently to carry out the purposes of these measures.

When the system is in working order, let every citizen, at the time he signs the poll book each year, declare his economic status as well as name his dependents, provided he feels that, in case of illness during the year, he would need financial assistance to some degree.

The local welfare organizations would be furnished this list and would proceed to investigate and certify these people and classify them into three groups, and issue them a card accordingly.

1. Those who are on relief and who cannot pay any hospital bill or doctor; they would be admitted and treated without any charge just as we now treat all who enter a charity hospital.

2. Those not actually on relief but who are barely making their own way; they would be given free hospital care but required to employ the physician of their choice and to pay him themselves. The medical profession should have a special low rate for this class.

3. Those making a living and able to have some of the luxuries; they should pay for hospital service and employ their own doctor just as is done today in private practice.

The State will save; the doctors will receive just compensation; all classes will receive adequate medical care near their homes, and maintain their self respect; and last, but not least, it will develop better doctors all over the State.

Then, and not until then, will the question of State Medicine no longer be agitated.

Will there be opposition to such a plan? Yes, and you all know from what source. But it would be better for the few who would not like it to take it than for the whole profession to be regimented and dictated to by social workers.

Some will say the next step would be to employ doctors by the month or year to treat patients; that is where I can speak with knowledge and authority: We have splendid physicians at our hospital but the patient will persist in telling us what his family physician said and he always speaks of him as "the" doctor.

No, the people of this country want to select their own doctor; that is the American spirit; it is the attribute that makes Americans Americans. If we allow this spirit to be crushed out, then freedom is in danger. The true American does not want charity even when he is sick.

The independent doctor, along with all other pioneers, helped hew from the wilderness a great United States. Our freedom demands that the doctor still be independent, else he will go the route of the independent merchant, down the throat of "chain enterprise," on the one hand, or be put out of

commission by regimentation on the other.

The American Medical Association is making the most comprehensive and realistic inventory of the demand for and the supply of medical services ever undertaken in this country. The study is being made by doctors; the answer will come from doctors.

This is not a new line of endeavor. The first meeting of the American Medical Association, in 1846, provided for a survey of conditions affecting health in the United States. As a result of that study the Association adopted a resolution urging the establishment of departments of public health. Ten years of public education and agitation by the medical profession resulted in the establishment of the first state health department. As state medical societies were organized they took up the campaign, until every state, most cities and many counties now have such departments.

During the last five years, state and county medical societies have tried more experiments with plans for furnishing medical care to the indigent and low-income classes than have all other organizations combined. In carrying out these experiments, organized medicine has cooperated freely—often at great personal and financial sacrifice to its members—with federal, state and local governments as well as with a multitude of private organizations, in efforts to provide better medical care for all the people.

Many of these experiments were failures; some were partial successes, and a few offer some encouragement for wider development. Such is to be expected of all honest experimentation.

In accordance with its ideal of maintaining a high quality of medical care, the medical profession has opposed every feature of every plan that would lower the quality of medical service. Organized medicine has opposed every effort to substitute unqualified lay or political management for qualified professional control, to take away the right of the patient to choose his own physician, to mechanize, standardize or regiment medical service and thereby destroy its quality, or to load the cost of medical care with the expense of a political bureaucracy.

I know of no group in which patriotism, high ideals and the sense of responsibility are

present to a higher degree than in our American physicians.

At this time I should like to discuss a matter which I consider well worth your attention.

Recent attacks on the medical profession of the United States have endeavored to create the impression that organized medicine is divided against itself and that many physicians are in revolt. This impression is without foundation in fact.

We have been assailed by the Government of the United States with an indictment that we constitute a monopoly and that our actions through our delegated authorities in the American Medical Association have violated the laws of this country as they apply to interstate commerce and restraint of trade.

I, for one, would like to have the American people know that I personally as a physician have been indicted by the United States Government; that the implied reflection on the integrity of the American Medical Association is considered by me as a reflection upon myself. I believe that the rest of you feel much the same.

I should like to have every citizen of the United States know that his family physician has been indicted. Can you make that mother whose child's life has been saved think that her doctor is opposed to the health of all the people? Can the millions of people that twenty-five years ago would have died of typhoid, diphtheria, diabetes, cholera infantum and other diseases, who walk the streets today and enjoy life's bounty, be made to say that American medicine deserves indictment? The blind have been made to see, the lame to walk, and the ill restored to health under our American system that never has defaulted nor proved unfaithful to trust.

I would like to have the American people know the medical profession of this country stands united in opposition to this indictment. We always have presented a united front, not only in the battle for the best public health service for the people, but in the constant seeking for better ways of providing medical service and care. That this united front exists is proved by the great attainments made by American medicine since the American Medical Association was created in 1846 for the initial purpose of im-



proving medical education. Today our medical schools are the outstanding ones in the world. Our research centers are leading the world into new avenues of medical knowledge. Today the medical world comes to America for its postgraduate studies rather than American physicians going to foreign countries for further studies, as was true thirty years ago. A united profession has attained all of these things, not for themselves but for the people, and a united profession will continue to oppose all that is inimical to the welfare of the people and fight for those things which best serve the people's interests.

Summing up what I have said, I believe that group medicine in numerous small rural hospitals can provide more adequate medical care and better distribution of doctors and public health work. I think it is better for the patient because he will receive better medical care. I think it is better for the doctor because he will have better facilities and thus enjoy the satisfaction of steady growth and the pride of knowing that he is doing a good job.

#### TREATMENT OF METASTATIC CARCINOMA OF NECK SECONDARY TO CARCINOMA OF LIP

R. B. MORELAND, Hines, Ill. (*Journal A. M. A.*, April 2, 1938), discusses the results in thirty-one cases of metastatic carcinoma of the neck secondary to that of the lip. Twenty-eight of these patients are free from disease from a few months to more than three years. Dissection of the neck is advocated when the primary lesion of the lip has been controlled and when there are enlarged cervical glands thought clinically to be metastatic. Preoperative irradiation is not given. Postoperative irradiation, from 3,000 to 4,000 roentgens, is given in all cases in which the glands are microscopically positive for carcinoma. Observation is advocated when enlarged cervical glands are thought to be inflammatory. Improving the condition of the mouth is all that is necessary in most of these cases. When the cervical glands are not enlarged, neither irradiation nor neck dissection is advocated. Neck dissection can be done as successfully after the glands are enlarged as before, provided operation is not deferred until the glands are large, fixed, ulcerated and inoperable. Combined external and intestinal irradiation is employed in far advanced, palliative cases. Probably no other tumorous condition is treated in more ways, or regarding which opinion is more divided and treatment less standardized, than in metastatic carcinoma of the neck.

The National Tuberculosis Association states that of 8,654 veterans of the World War hospitalized for tuberculosis, 71 per cent were far advanced.

#### THE DIAGNOSIS AND MANAGEMENT OF ACUTE CHOLECYSTITIS\*

HOWARD M. CLUTE, M.D.

Boston, Mass.

A clear understanding of the pathology of acute cholecystitis is essential to any discussion of the treatment of this disease. For many years it was assumed that the gangrenous, necrotic gallbladders found when operating on cases of acute cholecystitis were the result of an overwhelming infection and that either graded surgery or delayed surgery was indicated. With increasing evidence, however, that interference with the blood supply of the gallbladder is the primary factor in acute cholecystitis and that infection is practically always secondary to this obstruction, a more radical surgical approach to the problem is justified. Since this concept of the pathology of acute cholecystitis is not widely recognized, it is best to review it because it forms the basis for our ideas in the treatment of acute cholecystitis.

Obstruction to the cystic duct is the first step in the production of acute cholecystitis and this obstruction is almost always caused by a stone. The results of this cystic duct obstruction vary as the anatomy of the blood vessels and lymphatics around the cystic duct vary in different people. Usually the anatomical arrangement of the veins, arteries, and lymphatics entering the gallbladder places them in close relationship with the cystic duct. Any obstruction to the duct produces at once a circulatory change in the walls of the gallbladder. Edema, necrosis, and gangrene of the gallbladder wall follow logically as increasing pressure on the outgoing veins and lymphatics occurs from swelling around the obstructed cystic duct. As the gallbladder becomes edematous, areas of necrosis in its wall appear as small terminal branches of the cystic artery are occluded. One case has been reported (Lobingier) of complete gangrene of the gallbladder from occlusion of the cystic artery. I have repeatedly noted large green and black areas in the thickened, red gallbladder wall which were undoubtedly due to occlusion of large branches of the cystic

\*Read before the Fifth District Medical Society, Atlanta, October 6, 1938.

artery. Actual thrombosis in the veins occurs but it is rare and our pathologist has had difficulty in finding this condition in many of our specimens. Patches of gangrene and finally perforation follow, however, as the edema, infarction and necrosis develop.

For many years it has been said that acute perforation of the gallbladder was rare since it occurred in but 1 per cent or less of all gallstone cases. These figures are no doubt correct but as Heuer has said they give quite an erroneous picture of the problem. Perforation only occurs in acute cholecystitis and therefore we should note its incidence only in acute cholecystitis rather than in all gallstone disease. From this viewpoint, a study of various statistics shows that perforation occurs in about 20 per cent of the cases of acute cholecystitis and is therefore by no means rare. Perforation may follow cystic duct obstruction rapidly if sufficient swelling occurs in the cystic duct to produce rapid gangrene of the gallbladder wall. We had one case with patches of gangrene in the gallbladder wall six hours after the first pain. Usually, however, it requires well over 24 hours before perforation will occur.

It is interesting to note that almost all the studies that have been made of the bacteriology of acute cholecystitis have confirmed the fact that acute infection is rarely a primary process in the gallbladder. Acute bacterial invasion of the gallbladder is preceded by obstruction of the cystic duct and interference with the blood supply of the viscus. Of course it is possible to have cystic duct obstruction and no secondary infection. Under these conditions, a simple hydrops of the gallbladder occurs which may persist for some time without infection. Usually infection follows in 2 to 4 days any obstruction to the cystic duct. Wilkie showed by an interesting series of experiments that when the cystic duct was obstructed, empyema of the gallbladder followed intravenous injections of streptococci. When, however, the duct was not obstructed, similar injections of bacteria produced no acute gallbladder infection. Andrews studied quantitatively the number of bacteria present in acutely inflamed gallbladders and found them no more numerous than in quiescent ones.

These laboratory findings are in accord with clinical results following the early removal of the acutely swollen red and edematous gallbladder. In these cases, we have no temperature rise or toxic course such as we should expect if we entered a highly infected field in the upper abdomen. The course after cholecystectomy for very early acute cholecystitis is no different than that following the removal of an ovarian cyst with a twisted pedicle. And that, to my mind, is logical since in each case the basic lesion is infarction of an abdominal viscus. In neither case can we consider bacterial infection as the primary factor.

Summarizing the pathology and bacteriology of acute cholecystitis then, we find that the primary step in the process is an obstruction to the cystic duct usually by a stone. Following this, comes pressure on the blood vessels about the cystic duct causing edema, necrosis and gangrene of the gallbladder walls. Infection, when it occurs, is the third step in the process and occurs relatively later in the course of the disease. With this sequence of events clearly in mind, we can now more readily conceive the logical clinical management of these cases.

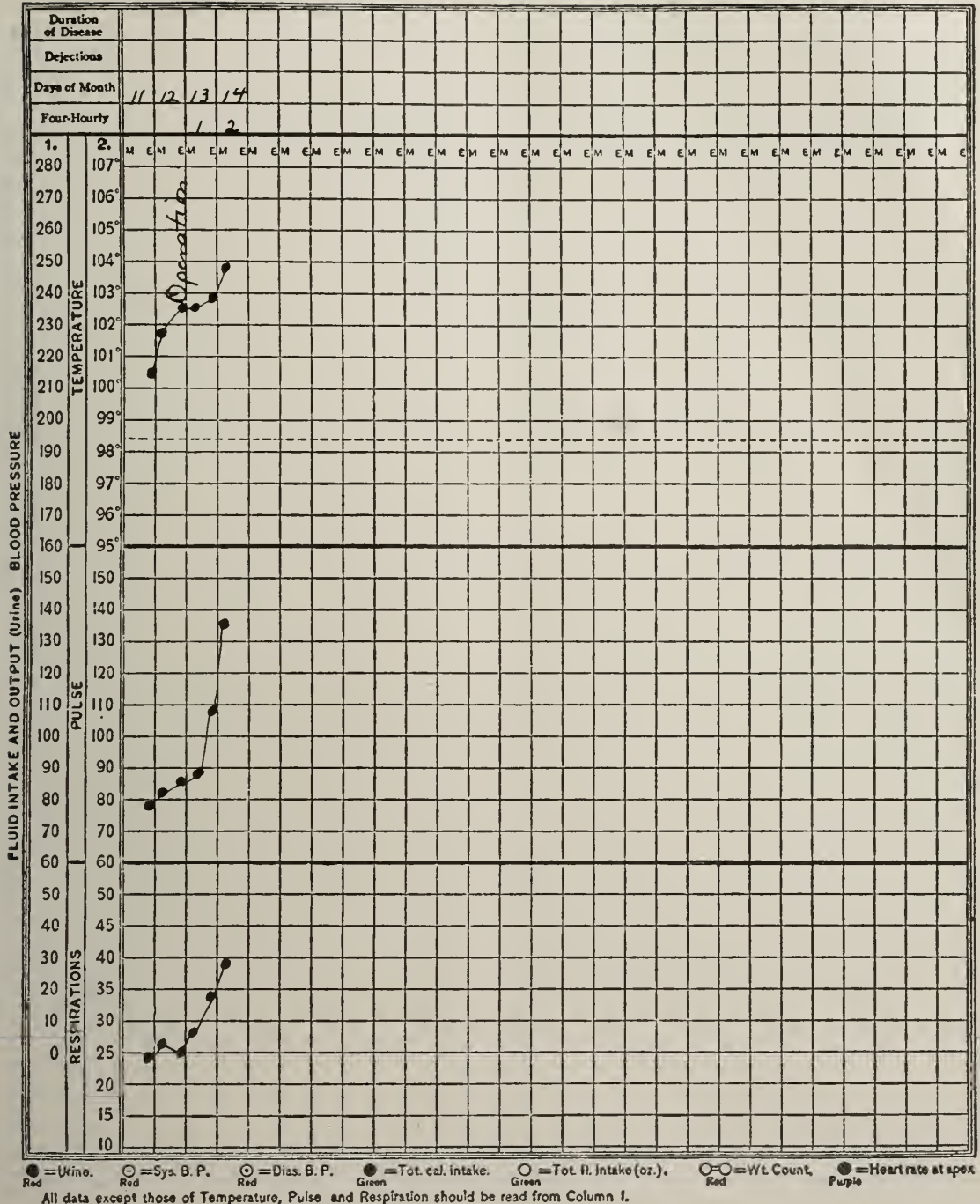
#### *Diagnosis*

The patient who has acute cholecystitis usually has a past history suggestive of gallstones. This may be a story of longstanding indigestion, which is marked by gaseous epigastric distention and fullness after meals and bears no precise or regular relation to food taking. It may be a vague indigestion which the patient has been able to avoid by omitting certain foods from her diet. In other cases, the patient may have a history of one or more previous attacks of gallstone colic. Between these attacks little or no digestive distress may have been present. The attacks may have been at long intervals.

The onset of acute cholecystitis is usually sudden and is marked by a severe, colicky or cramp-like pain in the epigastrium. Typically this pain is referred to the right back or right shoulder blade. Rarely the pain is referred to the left back, possibly because of some involvement of the pancreas. The patient is usually red-faced and tossing about the bed—quite different from the case of perforated ulcer, who lies still with knees drawn up, or







Occasionally the onset of acute cholecystitis occurs with a chill and a high fever as well as pain. This is seen most commonly when acute cholecystitis complicates the course of some generalized infection, such as typhoid fever and is in our experience quite rare. Such a history usually means that infection is present at the time of the obstruction to the cystic duct, and that the treatment must be most conservative. In these cases, a rapid fatality often follows hurried surgery which

has failed to recognize the presence of infection as well as obstruction.

On examination, the patient with acute cholecystitis will very often have tenderness in the right upper quadrant and, within just a few hours after the onset of pain, a dilated gallbladder can often be palpated. There is some splinting of the muscles depending on the amount of involvement of the peritoneum over and around the gallbladder. There is no such splinting of the abdominal muscles,

however, as accompanies a perforated peptic ulcer. One must recall that not infrequently the gallbladder lies well up under the overhanging lobe of the liver well away from the parietal peritoneum of the belly wall. In this situation, no mass or spasm will be found and only vague tenderness is present. There will, however, usually be marked tenderness over the liver on fist percussion.

In acute cholecystitis, breathing may be painful and crackling rales or diminished breath sounds may be heard at the base of the right lung. Here, of course, the tenderness and mass in the right upper quadrant are a material help in deciding the true situation, but at times it is difficult to know whether pneumonia or cholecystitis is present.

When the gallbladder is low, one may consider that acute appendicitis is present. In acute cholecystitis, however, there is no interval of free muscle to be palpated above the tender mass which merges with the liver border. In acute appendicitis, one can usually map out by palpation the tender area and note a free interval between the liver and the mass. In some cases, it may be impossible to distinguish acute cholecystitis from acute appendicitis by local examination.

A tinge of jaundice is often noted in the sclerae in acute cholecystitis and although the stools may remain brown, bile may appear—usually transiently—in the urine. This transient jaundice may well be due to an edema at the junction of the cystic and common ducts, which partly obstructs the common bile duct. The white count is elevated to 12,000 or more soon after the onset of the attack in the usual case of obstructive cholecystitis, and is a most helpful diagnostic point. In the early stages of acute cholecystitis the white count is almost invariably elevated to 12 or 15,000 even though the temperature is normal. When the count is up to 20,000, or more, we must at once suspect that we are dealing with an infectious cholecystitis or with some entirely different lesion. The temperature at the onset of obstructive cholecystitis is usually within a degree of normal and rarely will go over 100° for the first two or three days. When it does go above this level, we should infer that infection, in addition to cystic duct obstruction, is present.

### *Treatment*

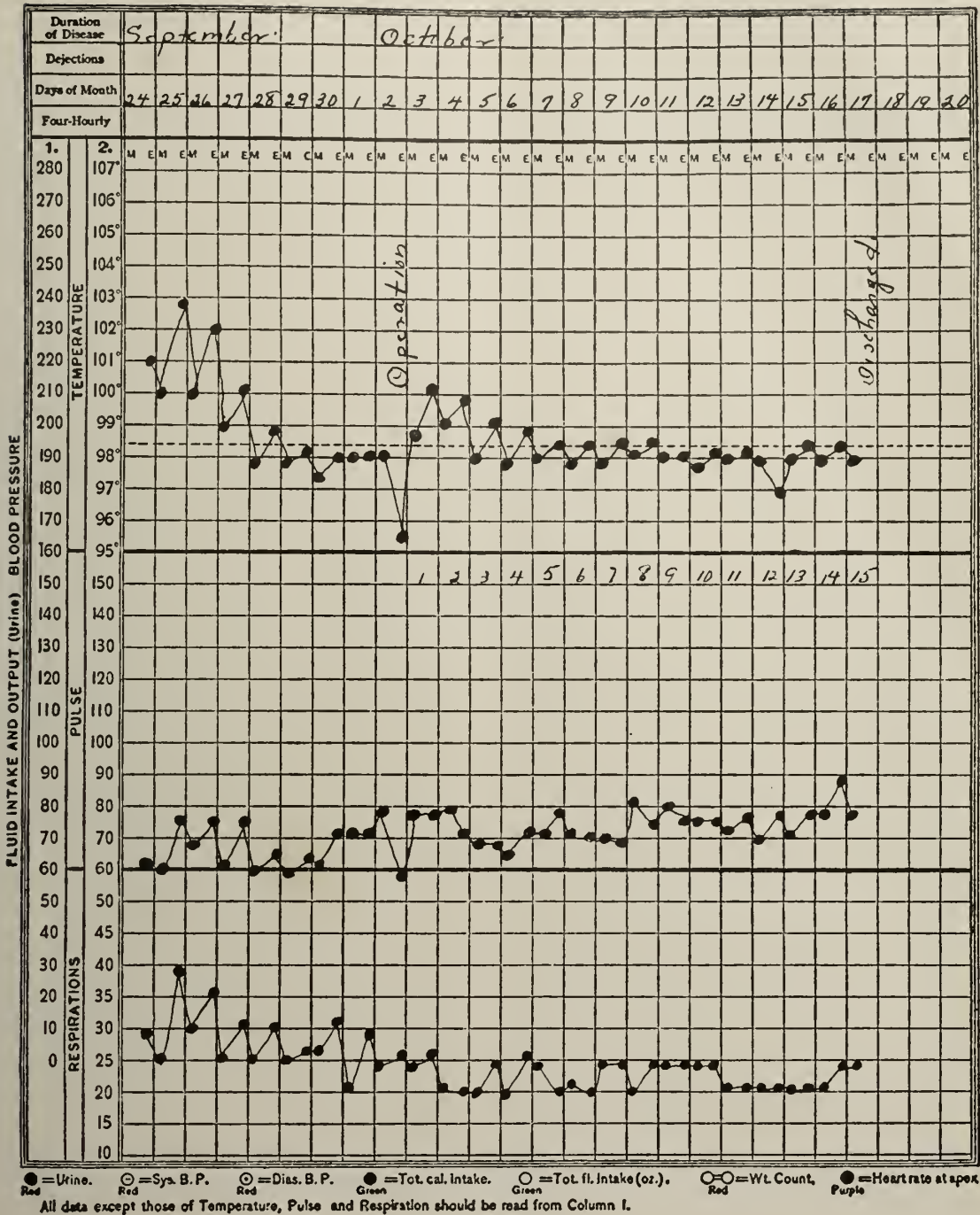
In theory, because of its pathology, every patient with acute cholecystitis should be operated upon within a few hours of its onset. In practice, this cannot regularly be done. Delay in seeking surgery occurs either because the diagnosis is obscure or because the physician believes that delayed surgery is best. I, personally, am convinced that in almost all cases of acute cholecystitis immediate cholecystectomy is the operation of choice.

There are many parallel factors not only in the pathology but also in the treatment of acute appendicitis and acute cholecystitis. The onset of each is marked by sudden colicky pain due to an obstruction of the lumen of the organ. In each case, a change in the blood supply follows this obstruction and tends to produce edema and necrosis in the walls of the viscus, conducive to perforation. Perforation is common in acute appendicitis but certainly with an average of 20 per cent it is not rare in acute cholecystitis.

The results of perforation in acute appendicitis and in acute cholecystitis differ only in the degree of peritonitis that follows. In appendicitis, perforation pours the highly infected contents of the cecum into the peritoneum. In perforations of the gallbladder, bile with relatively low bacterial content is diffused through the peritoneal cavity. In either case, death may rapidly follow.

We are all in agreement that patients with acute appendicitis should be operated upon within a few hours of the onset of the attack. We all know that this course gives a low mortality, few complications and a short hospitalization. The same results, in my experience, and for the same reasons, follow operation done within a few hours of the onset of acute cholecystitis. Here, cholecystectomy is easy and convalescence comfortable.

A typical example of these facts is seen in the chart of Mrs. F. B., (Chart I). This woman was found to have gallstones some years ago when a pelvic operation was performed. She recently had an acute attack of upper abdominal pain and within 6 hours a palpable mass was felt in the right upper quadrant. Her temperature was 99°. Her white count was 15,000. At operation, about 12 hours after the onset of the pain, the gallbladder was thick-walled, red and much dis-



tended. It was removed from above downward with ease and drainage placed to the stump of the cystic duct. Convalescence, as can be seen from the hospital record, was uneventful.

One cannot but be impressed by the ease of removing the gallbladder in the early hours of acute cholecystitis. The edema of its walls makes it very easy to peel from the liver bed. The cystic artery and cystic and common ducts can be readily demonstrated by a little

dissection with gauze pledgets on long snaps. Bleeding from the liver bed is trivial and a cigarette drain readily controls it.

The treatment of a patient, who has acute cholecystitis of several days' duration, and shows by the presence of fever, elevated white count and toxic appearance that infection has been grafted on to the obstructive process presents a totally different problem. Here, it appears to me, is a situation requiring the finest surgical judgment. The first question to de-



cide is whether perforation has or has not actually occurred. Evidence pointing to perforation is a widespread muscle spasm in the upper abdomen, a very high white count—over 25,000—a high fever, a rapid pulse and an appearance of critical toxicity and illness. Under such circumstances, drainage of the upper abdomen and gallbladder under novocaine locally is probably best. It is to be noted that even in these critical and often fatal situations, time must be taken to give the patient large amounts of parenteral glucose and fluids, before operating.

A typical example of this type of lesion is the case of Mr. — (Chart II). He had taken sick 6 days before I saw him with severe pain in the upper abdomen, which resembled severe colic he had had in the past. This continued with occasional remissions for 4 days. On the day of admission, he had a much more severe pain with some general collapse. His fever rose from 100° to 103°. His white count was over 30,000. His abdomen became distended and was held in spasm. Peristalsis was almost completely absent. Tenderness was diffuse but most marked over the right side. He was first given a blood transfusion and then a solution of glucose in distilled water intravenously. At operation, the peritoneal cavity contained quantities of free bile and innumerable small gallstones. The gallbladder was gangrenous in one area and had perforated. A tube and cigarette drains were inserted. Death occurred after 36 hours.

Fortunately, in most cases, when infection follows obstruction of the cystic duct, the process becomes walled off by omentum and perforation does not occur. After an interval of a week or more, in these cases, the temperature begins to recede, the white count becomes lower and the abdominal signs become less threatening. Such a situation is shown in the case of Mr. B (Chart III), who entered the hospital 5 days after the onset of his attack of acute cholecystitis. His temperature was 102°, pulse 110, W.B.C. 18,000. His abdomen showed a tender mass in the right upper quadrant with considerable muscle spasm about it. His eyes showed a tinge of jaundice. He was given large amounts of fluid and glucose intravenously and hot applications

were applied to his abdomen. With these measures, his temperature gradually fell and his white count came down to a level around 10,000, where it remained. Equally helpful for our decision as to treatment was the daily improvement in the tenderness and spasm over his gallbladder after 8 days of normal temperature. Cholecystectomy was safely performed on the fifteenth day after the onset of his disease.

In these late cases, cholecystectomy is technically difficult because of the organization of the edematous tissue about the cystic and common ducts. If one is forced to delay operation in acute cholecystitis, it is better to wait two weeks or more. This makes the operation considerably easier and safer.

Had this man begun to vomit or had he shown increasing toxicity, increasing fever and white count, increasing tenderness and spasm in the upper abdomen during his hospital stay, we should have been forced to drain his gallbladder under local anesthesia. When this is done, it must be assumed that the gallbladder is to be removed two or three months later by a second operation.

All cases of acute cholecystitis require the nicest surgical judgment, as to the proper treatment to employ. In my experience, delay in operating on acute cholecystitis increases the chances of perforation, abscess formation, and peritonitis. Delay in surgery frequently means two operations and long hospitalization. To my mind, immediate surgery is logical in acute cholecystitis because of the pathology. Complications following immediate surgery are few, hospital stay is short, the mortality is low, and the final results are excellent.

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3. Wilkie, A. L.: *The Bacteriology of Cholecystitis—A Clinical and Experimental Study*, *Brit. J. Surg.* 15:450, 1928.
4. Andrews, E.: *Detailed Study of a Series of Gall Bladder Cases*, *Surg. Gynec. & Obst.*, 57:36, 1933.
5. Zollinger, R.: *Distention of the Gall Bladder and Common Duct*, *Proc. Soc. Exp. Biol. & Med.* 1933, XXX, 1260.

The U. S. Public Health Service reports that loss of earning power plus expense of treating and caring for an estimated 21,600 cases of blindness due to syphilis amounts to more than \$10,000,000 annually. The facts were presented in a paper by Surgeon C. E. Rice, service consultant to the Social Security Board.

## EXCISION OF PANNICULUS ADIPOSUS

LINTON SMITH, M.D.  
*Atlanta*

Partial excision of a redundant fatty abdominal wall has been done many times and several such abdominal aprons have been removed weighing 1,500 to 2,000 Gm. The mass removed from the patient reported below weighed 57 pounds, 8 pounds larger than the largest tumor of this kind that I have been able to find in the literature.

### *Report of Case*

R. C., a colored multipara, aged 41, height, 71 inches, weighed before operation 321 pounds. Five years previously she had noticed a mass in the abdominal wall, just below the umbilicus, which felt hard and which grew rapidly until it interfered seriously with usual activities. The mass hung almost to her knees when standing, and intertrigo from friction and moisture affected the skin on the under side of the mass and the skin of the lower abdomen to the pubes. She was unable to turn over in bed without first getting up upon her feet. Other than being a very large woman her condition was not unusual.

On April 11, 1938, under a general anesthetic, I outlined the pendulous portion of her abdomen with two elliptic incisions through the skin and underlying adipose tissue, so planned that laterally its limits were



Figure 1  
Front view before operation.



Figure 2  
Side view before operation.

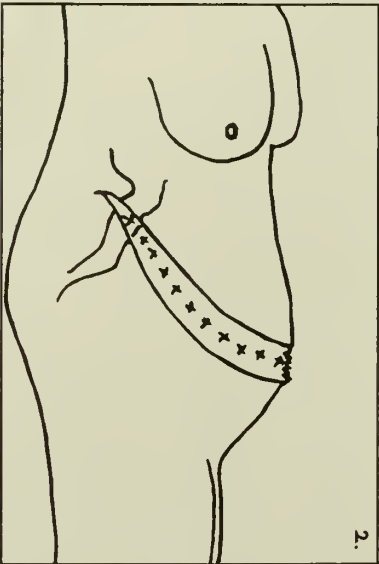
Excessively large abdominal walls occur from an overgrowth of the fatty connective tissue and are usually encountered in very obese women, and particularly in multiparas. This condition can interfere seriously with a woman's comfort and also limit her physical activities, such as sexual intercourse, ordinary body care, dress, appearance, and particularly it causes intertrigo.

far enough outwards and vertically far enough apart in the median line, that when the redundant portion of skin and fatty tissue was removed the upper and lower walls came together without undue tension. Each elliptic incision was 30 inches long and transversely the mass measured 27 inches, vertically 23 inches and in depth 20 inches. Immediately after removal it weighed 57 pounds. The incisions were made very much as one cuts out a segment of a circular cake and the amount of tissue to be removed was carefully estimated before operation and the lines of incision were

Figure 3  
Schematic drawing before operation showing incisions.



Figure 4  
Schematic drawing after operation showing method of closure.



marked on the skin previously. The upper incision was made first, transversely through skin and fatty tissue, tilted obliquely downward so as to form a wedge-shaped mass, directly to the aponeurosis of the abdominal muscles but care was taken not to cut through the aponeuroses, which are the chief support of the abdominal wall.

Moderate hemorrhage was encountered, mostly from enlarged veins, which was controlled by ties. The fatty mass was then elevated as high as possible up under the skin and the lower incision was made in a like manner, joining the first incision at the ends and the mass was at once freed from the aponeurosis. Care was taken to see that no bleeding was left as hematomas would seriously interfere with healing of the fatty tissue, which is not the best grade of tissue for union, and encourage infection and gaping of the wound which would greatly prolong convalescence.

The suturing of the deeper parts was accomplished by four tiers of chromic gut sutures and silkworm

sutures were also placed to relieve the skin of undue tension. The skin was closed by a series of running black silk sutures and a soft rubber drain was left in each end of the incision.

This patient made an uneventful recovery except that there was some drainage for three weeks from fat necrosis.

Her health has been good since the operation and the scar is in excellent condition.

REFERENCES

Bickham Op. Surg., Vol. 4, W. B. Saunders, Phila 1924

MEDICAL ASSOCIATION OF GEORGIA  
BALANCE SHEET

April 1, 1938 to March 31, 1939

Receipts

April 1, 1938:	
Citizens & Southern National Bank, Atlanta	\$ 5,088.28
First National Bank, Atlanta	5,043.79
Fulton National Bank, Atlanta	1,249.82
Deposit subject to check Fulton National Bank, Atlanta	8,043.64
Interest on Savings Accounts	205.66
Receipts	20,872.65
Total	\$40,503.84

Disbursements

April 1, 1938 to March 31, 1939:	
Disbursements as shown by attached vouchers	\$15,668.90
Cash in savings accounts:	
Citizens & Southern National Bank, Atlanta	5,159.21
First National Bank, Atlanta	5,119.72
Fulton National Bank, Atlanta	1,268.62
Standard Federal Savings & Loan Assn.	2,040.00
Cash subject to check, Fulton National Bank, Atlanta	11,247.39
Total	\$40,503.84

RECEIPTS AND DISBURSEMENTS

Classified

April 1, 1938 to March 31, 1939

Receipts

Dues	\$11,088.40
Advertising	6,027.00
Public Relations Bureau	1,670.00
Commercial Exhibits	1,998.75
Scientific Exhibit	65.00
Subscriptions	23.50
Total	\$20,872.65



<i>Disbursements</i>	
The Journal	\$ 7,188.73
Salaries	2,080.00
Delegates to American Medical Association	1,200.00
Medical Defense	1,017.40
Augusta session	688.89
Reporting Augusta session	350.00
Public Relations Bureau	658.50
Exhibit, Hall of Health, Southeastern Fair, Atlanta, October 2-9, 1938	422.01
Public Policy and Legislation	240.55
Honorarium and other expenses for Presidents—Traylor and Coker	366.18
Stationery for officers and committees	123.44
Postage on outgoing mail and business reply envelopes	387.50
Cancer Commission	150.00
Telephone and telegraph accounts	113.66
Typewriter	93.50
Survey of Medical Care sponsored by the A.M.A.	81.80
Stationery for office, insurance and surety bonds, council, binding Journals, Medical Writings—Its Art and Technic, repairs on old typewriter, paste, typewriter ribbons, American Medical Directory, Engraving on Hardman Loving Cup, pencils, Gem clips, filing cabinet, twine, rubber bands, membership cards, books for office records, index files, mimeograph paper, miscellaneous printing and other incidental expenses	506.74
Gain in operating funds	5,203.75
Total	\$20,872.65

## THE JOURNAL

*Receipts and Disbursements*

April 1, 1938 to March 31, 1939

*Receipts*

Subscriptions from members	\$4,752.17
Advertising	6,027.00
Subscriptions	23.50
Total	\$10,802.67

*Disbursements*

Printing and mailing The Journal	\$3,905.28
Salaries	2,080.00

Cuts for illustrations and work on electros for advertisers	340.97
Postage	292.00
Envelopes for mailing The Journal	82.97
Commission on advertising orders	152.86
Addressograph machine and supplies	173.66
News clippings	60.00
Copyright fees and expenses	14.36
Rent	75.63
Reprints for associate editors	11.00
Profit	3,613.94
Total	\$10,802.67
<i>DISBURSEMENTS—Itemized</i>	
April 1, 1938 to March 31, 1939	
2937—Southern Press Clipping Bureau	
March, 1938	\$ 10.00
News clippings for February and	
2938—Service Engraving Company	
Cuts for illustrations in Journal and repairs on electros for advertisers	129.93
2939—Herff-Jones Company	
Two Association pins	2.07
2940—Addressograph-Multigraph Corp.	
500 B addressograph plates	1.75
2941—Lyon-Young Printing Company	
Binding 11 volumes of the 1937 issues of The Journal and printing delegates' credentials cards	25.25
2942—Ivan Allen-Marshall Company	
Paper, pencils, typewriter ribbon and twine	4.60
2943—Webb & Martin, Inc.	
Printing 2,500 copies of Dr. Geo. A. Traylor's article for Woman's Auxiliary	16.75
2944—Southern Bell Tel. & Tel. Co.	
Telephone account to March 21, 1938	7.70
2945—Edgar D. Shanks, M.D.	
Salary for Secretary-Treasurer for March, 1938	150.00
2946—H. L. Rowe	
Salary for Executive Secretary for March, 1938	192.50
2947—L. F. Livingston, Postmaster	
Deposit for postage to mail The Journal	25.00
2948—L. F. Livingston, Postmaster	
Deposit to pay postage—due (Business reply envelopes)	10.00
2949—L. F. Livingston, Postmaster	
Postage	30.00
2950—Geo. A. Traylor, M.D.	
Balance on miscellaneous expenses incurred as President, 1937-1938	25.59
2951—Miss Annie Jacks	
Commission on advertising order	4.25

2952—Underwood Elliott Fisher Co. One Underwood typewriter, less 10 per cent and 10 per cent	93.56	terial for the scientific exhibit	143.79
2953—Webb & Martin, Inc. Printing and mailing the April, 1938 issue of The Journal, print- ing programs for the Augusta ses- sion for the Association and the Woman's Auxiliary	433.44	2968—Miss Annie Jacks Commission on advertising order	22.50
2954—J. D. Grant Part payment for work on scien- tific exhibit at the Augusta ses- sion	60.00	2969—American Medical Association 6 Copies of Medical Writing—It's Art and Technic	9.00
2955—Service Engraving Company Work on electros for advertisers	3.51	2970—The Master Reporting Company Reporting and transcribing min- utes of the Council, proceedings of the House of Delegates and general meeting, April 26-29, 1938, together with carbon copies	350.00
2956—Southern Bell Tel. & Tel. Co. Telephone account to April 21, 1938	6.60	2971—Western Union Telegraph Co. Telegraph account to May 1, 1938	5.88
2957—The Lilley Ames Co. 800 Badges for the Augusta ses- sion, April 26-29, 1938	50.70	2972—Atlanta Envelope Co. 25,500 envelopes for mailing the Journal	82.97
2958—Mrs. Margaret Norris Salary for work from April 12 to May 2, 1938	45.00	2973—Webb & Martin, Inc. Printing and mailing 2,200 copies of the May, 1938 issue of The Journal	317.44
2959—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for April, 1938	150.00	2974—Southern Typewriter Co. Work on old typewriter	8.50
2960—H. L. Rowe Salary for Executive Secretary for April, 1938	192.50	2975—J. F. Thompson Engraving Co. Letterheads and envelopes for offi- cers and Committees	113.44
2961—Cash Cash paid out on commercial and scientific exhibits at the Augusta session, April 26-29, 1938; help at registration desk; stenographer for Reference Committees; and work of refinishing and clean- ing office	102.00	2976—J. A. Redfearn, M.D. Expenses incurred as Councilor	20.00
2962—L. F. Livingston, Postmaster Postage	30.00	2977—L. F. Livingston, Postmaster Postage	30.00
2963—L. F. Livingston, Postmaster Deposit for postage to mail The Journal	25.00	2978—Fred A. Mettler, M.D., for Dressler Painting signs for the Augusta session, April 26-29, 1938	7.00
2964—Jas. J. Clark, M.D. Payment for booth radiologic ex- hibits at the Augusta session, April 26-29, 1938	50.00	2979—C. W. Roberts, M.D. Part of expenses for delegate to at- tend the San Francisco session of the American Medical Association, June 13-17, 1938	300.00
2965—Forest Hills Hotel, Augusta Expenses for guests, telephone and telegraph accounts and other in- cidental expenses during annual session, April 26-29, 1938	19.59	2980—Wm. H. Myers, M.D. Part of expenses for delegate to the San Francisco session of the American Medical Association, June 13-17, 1938	300.00
2966—J. D. Grant Work on booths for scientific ex- hibit, transportation and expenses of men to and from Augusta, April 26-29, 1938, material bought in Augusta and storage of equipment	136.68	2981—Olin H. Weaver, M.D. Part of expenses for delegate to attend the San Francisco session of the American Medical Association, June 15-17, 1938	300.00
2967—Newton Coal & Lumber Co. Paint, oil, turpentine, lumber, tacks, nails with all other ma-		2982—Edgar D. Shanks, M.D. Part of expenses for Secretary- Treasurer to attend the San Fran- cisco session of the American Medical Association, June 13-17, 1938, as official representative of the Medical Association of Georgia	300.00
		2983—Logan Clark Insurance Agency Surety bond for Secretary-Treas- urer to May 25, 1939	5.00
		2984—Southern Bell Tel. & Tel. Co. Telephone account to May 21, 1938	7.10

2985—Ivan Allen-Marshall Co.		Deposit for postage to mail The Journal	25.00
12 jars of paste	4.00		
2986—Remington Rand, Inc.		3004—American Medical Association	
Coupon book for carbon paper and typewriter ribbons	7.00	One copy of the Fifteenth Edition of the American Medical Directory, 1938	15.00
2987—Southern Press Clipping Bureau		3005—Southern Press Clipping Bureau	
News clippings for April and May, 1938	10.00	News clippings for June and July, 1938	10.00
2988—Service Engraving Co.		3006—Edgar D. Shanks, M.D.	
Cuts for illustrations and work on electros for advertisers	31.35	Salary for Secretary-Treasurer for July, 1938	200.00
2989—Edgar D. Shanks, M.D.		3007—H. L. Rowe	
Salary for Secretary-Treasurer and work for Public Relations Bureau for May, 1938	200.00	Salary for Executive Secretary for July, 1938	192.50
2990—H. L. Rowe		3008—L. F. Livingston, Postmaster	
Salary for Executive Secretary for May, 1938	192.50	Postage	30.00
2991—Walter W. Brown Publishing Co.		3009—J. F. Thompson Engraving Co.	
Envelopes for mailing forms for the Study of Medical Care, sponsored by the American Medical Association	11.80	Engraving name and achievement in the treatment of pellagra by Dr. V. P. Sydenstricker on the L. G. Hardman Loving Cup	4.25
2992—Webb & Martin, Inc.		3010—Webb & Martin, Inc.	
Printing and mailing 2,000 copies of the June, 1938 issue of The Journal	317.44	Printing and mailing 2,500 copies of supplement to the August, 1938 issue of The Journal for the Committee on Public Policy and Legislation (copy of Basic Science Bill)	48.00
2993—L. F. Livingston, Postmaster		3011—Cash	
Postage for mailing forms to county medical societies for the Study of Medical Care sponsored by the American Medical Association	30.00	Postoffice money order and fee for order to Register of Copyrights to copyright the August, 1938 issue of The Journal	2.06
2994—L. F. Livingston, Postmaster		3012—Webb & Martin, Inc.	
Postage	30.00	Printing and mailing 2,100 copies of the August, 1938 issue of The Journal and balance on July Journals	316.44
2995—The Lilley-Ames Co.		3013—Grady N. Coker, M.D.	
Extra badges for guests at the Augusta session, April 26-29, 1938	3.13	Honorarium for president, 1938-1939	300.00
2996—Service Engraving Co.		3014—J. L. Campbell, M.D., Chairman, Cancer Commission	
Cuts for illustrations for the report of the Committee for the Study of Maternal Mortality and Infant Deaths, 1937-1938	21.18	For expenses of postage, stationery, exhibits, clerical work in the promotion of cancer control	150.00
2997—Edgar D. Shanks, M.D.		3015—H. G. Weaver, M.D.	
Salary for Secretary-Treasurer for June, 1938	200.00	Expenses incurred as Councilor	4.45
2998—H. L. Rowe		3016—Ivan Allan-Marshall Co.	
Salary for Executive Secretary for June, 1938	192.50	Pencils, Gem clips and mimeograph paper	2.75
2999—Southern Bell Tel. & Tel. Co.		3017—Photo Process Engraving Co.	
Telephone account to June 21, 1938	6.40	Cuts for illustrations	15.13
3000—Standard Federal Savings & Loan Assn.		3018—Gresens Studio	
Savings account (\$2,000.00)		Cuts for illustrations	20.79
3001—Webb & Martin, Inc.		3019—A. B. Dick Co.	
Printing and mailing 2,050 copies of the July, 1938 issue of The Journal	300.80	Maintenance contract for six months on mimeograph machine	7.00
3002—Photo Process Engraving Co.		3020—John H. Harland Co.	
Work on electros for advertisers	1.85	16,340 letterheads	81.70
3003—L. F. Livingston, Postmaster		3021—Associated Mutuals, Inc.	



Fire insurance on office furniture and equipment	13.30	(Public Relations Bureau)	12.50
3022—Southern Bell Tel. & Tel. Co.		3038—L. F. Livingston, Postmaster	
Telegraph accounts for July and August, 1938	13.40	Deposit for postage to mail The Journal	25.00
3023—Edgar D. Shanks, M.D.		3039—Ivan Allen-Marshall Co.	
Salary for Secretary-Treasurer for August, 1938	200.00	Filing cabinet, indexes, mimeograph paper, twine, rubber bands and wrapping paper	43.75
3024—H. L. Rowe		3040—Addressograph-Multigraph Corp.	
Salary for Executive Secretary August, 1938	192.50	Paid difference in exchange on graphotype machines	165.94
3025—L. F. Livingston, Postmaster		3041—Edgar D. Shanks, M.D.	
Postage	30.00	Salary for Secretary - Treasurer for September, 1938	200.00
3026—Webb & Martin, Inc.		3042—H. L. Rowe	
500 Reprints for L. Minor Blackford, M.D., associate editor	11.00	Salary for Executive Secretary for September, 1938	192.50
3027—Empire Letter Shop		3043—Webb & Martin, Inc.	
Multigraphing for Sub-Committee on Medical Economics: proposed plan for the care of the indigent sick	4.15	300 reprints of fee schedule	8.70
3028—L. F. Livingston, Postmaster		3044—Fulton County Medical Society	
Postage	30.00	Rent for May, June, July, August and September, 1938	68.75
3029—Webb & Martin, Inc.		3045—Miss Annie Jacks	
Printing and mailing 2,100 copies of the September, 1938 issue of The Journal	310.44	Commission on orders for advertising	11.41
3030—Cash		3046—American Surety Co.	
Cash to pay for P. O. order and fee to have the September, 1938 issue of The Journal copyrighted	2.06	Premium on surety bond for Executive Secretary to September 6, 1939	5.00
3031—Herbert L. Treusch, M.D.		3047—Mrs. Margaret Norris	
Drawing or writing in script in colors an enlarged copy of the oath of Hippocrates to be framed and put on display at the Southeastern Fair, Atlanta, October 2-9, 1938 (Public Relations Bureau)	20.00	Work at Southeastern Fair, Atlanta, October 3-9, 1938 for the Public Relations Bureau	28.00
3032—L. Minor Blackford, M.D.		3048—L. F. Livingston, Postmaster	
Work on material for the Public Relations Bureau used at the Southeastern Fair, Atlanta, October 2-9, 1938	10.00	Postage	30.00
3033—Photo Process Engraving Co.		3049—Webb & Martin, Inc.	
Cuts for illustrations and work on electros for advertisers	40.41	Printing and mailing 2,100 copies of the October, 1938 issue of The Journal	310.44
3034—Southern Press Clipping Bureau		3050—Binder's	
News clippings for August and September, 1938	10.00	Framing pictures of the scientific and health exhibits at the Southeastern Fair, Atlanta, October 2-9, 1938	20.77
3035—Lyon-Young Printing Co.		3051—Reeves Studios, Inc.	
30,000 Folders used in the exhibit at the Southeastern Fair, Atlanta, October 2-9, 1939 (Public Relations Bureau)	101.00	Making pictures of all exhibits for the State Board of Health, Fulton County Medical Society and the Medical Association of Georgia at the Southeastern Fair, Atlanta, October 2-9, 1938	142.99
3036—Southern Bell Tel. & Tel. Co.		3052—J. W. Simmons, Clerk, Fulton County Superior Court	
Telephone account to September 21, 1938	6.00	Four certified copies of the Association's charter, mailed to the American Medical Association to be used in the grand jury investigation at Washington, D. C.	15.20
3037—Gresens Studio		3053—Fulton County Medical Society	
Two pictures of the building first used as a medical school in Georgia and frame for one picture		Prorata part of general expense incurred for the Hall of Health, a display at the Southeastern	

	Fair, Atlanta, October 2-9, 1938	30.00		and mimeograph paper	7.75
3054—	Western Union Telegraph Co. Telegraph account to November 1, 1938	1.27	3072—	L. F. Livingston, Postmaster Deposit for postage to mail The Journal	25.00
3055—	Phillips-Brown Co. Two signs for scientific exhibit at the Southeastern Fair, Atlanta, October 2-9, 1938	6.50	3073—	Addressograph-Multigraph Corp. B Addressograph plates and buff cards	4.32
3056—	Photo Process Engraving Co. Cuts for illustrations and work on electros for advertisers	23.89	3074—	Photo Process Engraving Co. Cuts for illustrations and work on electros for advertisers	26.37
3057—	Webb & Martin, Inc. One hundred reprints for Dr. Geo. A. Traylor, Augusta, of his article, "Progress of Medicine in Georgia"	13.50	3075—	Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for November, 1938	200.00
3058—	Edgar D. Shanks, M.D. Salary for Secretary - Treasurer for October, 1938	200.00	3076—	H. L. Rowe Salary for Executive Secretary for November, 1938	192.50
3059—	H. L. Rowe Salary for Executive Secretary for October, 1938	192.50	3077—	Capital City Club Expenses for entertaining Governor Rivers; Roy Harris, speaker of the Lower House of the General Assembly of Georgia; and John Spivey, speaker of the Upper Chamber, in reference to legislative program	21.15
3060—	Southern Bell Tel. & Tel. Co. Telephone account to October 21, 1938	6.00	3078—	Fulton County Medical Society Rent for October, November and December, 1938	41.25
3061—	Virgil W. Shepard Building and painting booth for the exhibit of the Association at the Southeastern Fair, Atlanta, October 2-9, 1938	42.00	3079—	L. F. Livingston, Postmaster Postage (\$10.50 for Public Relations Bureau)	30.00
3062—	L. F. Livingston, Postmaster Postage	30.00	3080—	William Anderson Janitor's services	5.00
3063—	L. F. Livingston, Postmaster Deposit for postage-due account	10.00	3081—	L. K. Starr Mailing news releases for the Public Relations Bureau	25.00
3064—	Webb & Martin, Inc. Printing 2,000 membership cards and 1,500 statement forms for the Public Relations Bureau	20.50	3082—	Miss Annie Jacks Commission on advertising orders	62.50
3065—	Webb & Martin, Inc. Printing and mailing 2,100 copies of the November, 1938 issue of The Journal	310.44	3083—	Cash Cash for P. O. order and fee to copyright the December, 1938 issue of The Journal	2.06
3066—	L. F. Livingston, Postmaster Postage	30.00	3084—	Webb & Martin, Inc. Printing and mailing 2,200 copies of the December, 1938 issue of The Journal	317.44
3067—	Cash Cash for P. O. order and fee to copyright the November issue of The Journal	2.06	3085—	L. F. Livingston, Postmaster Postage	30.00
3068—	Bryan, Middlebrooks & Carter, Attys. Expenses to and from Gainesville for Grover Middlebrooks, Atty., in the trial of suit of Dr. R. L. Rogers vs. H. T. Oliver	5.45	3086—	L. F. Livingston, Postmaster Postage for Public Relations Bureau	30.00
3069—	Southern Press Clipping Bureau News clippings for October and November, 1938	10.00	3087—	Ivan Allen-Marshall Co. Ruled cards for index files, yellow second sheets and mimeograph paper	11.95
3070—	Southern Bell Tel. & Tel. Co. Telephone account to November 21, 1938	6.00	3088—	A. B. Dick Co. Mimeograph stencil sheets and correction fluid	4.05
3071—	Ivan Allen-Marshall Co. Book to register officers and members of county societies, index tabs		3089—	Walter W. Brown Publishing Co. 2,000 copies 8-page folder for Committee on Public Policy and Legislation; copies of Basic Science Bill, and other material in refer-	

ence to legislative program	42.00	mittee on Public Policy and Legislation	21.00
3090—Southern Bell Tel. & Tel. Co.		3110—Photo Process Engraving Co.	
Telephone account to December 21, 1938	7.00	Cuts for illustrations and work on electros for advertisers	18.16
3091—Photo Process Engraving Co.		3111—Fulton County Medical Society	
Work on electros for advertisers	3.58	Rent for January, February and March, 1939	41.25
3092—Darby Printing Co.		3112—Reeves Studios, Inc.	
750 copies of Medical News, No. 1, for Public Relations Bureau	18.00	Photos for the Public Relations Bureau	8.25
3093—Edgar D. Shanks, M.D.		3113—Western Union Telegraph Co.	
Salary for Secretary-Treasurer for December, 1938	200.00	Telegraph accounts for December and January, 1939	15.16
3094—H. L. Rowe		3114—Darby Printing Co.	
Salary for Executive Secretary for December, 1938	192.50	Printing 750 copies of the February issue of the Medical News	21.00
3095—Webb & Martin, Inc.		3115—L. F. Livingston, Postmaster	
4,000 copies of "Greatest Value for Georgia Physicians" in reference to membership and dues	15.50	Postage	30.00
3096—S. H. Benedict		3116—Cash	
200 floor prints of the Biltmore Hotel, Atlanta, for commercial exhibitors during the Atlanta session of the Association, April 25-28, 1939	32.50	Cash paid for P. O. order to copyright the February, 1939 issue of The Journal	2.00
3097—L. F. Livingston, Postmaster		3117—Miss Annie Jacks	
Postage	30.00	Commission on advertising order	8.12
3098—Webb & Martin, Inc.		3118—Bryan, Middlebrooks & Carter, Attys.	
Printing and mailing 2,150 copies of the January, 1939 issue of The Journal	309.44	Retainer as attorneys for the Medical Association of Georgia from January 1 to December 31, 1939	1,000.00
3099—Miss Annie Jacks		3119—Webb & Martin, Inc.	
Commission on advertising orders	37.33	Printing and mailing 2,200 copies of the February, 1939 issue of The Journal	317.44
3100—L. F. Livingston, Postmaster		3120—L. F. Livingston, Postmaster	
Postage	30.00	Postage	30.00
3101—L. F. Livingston, Postmaster		3121—Photo Process Engraving Co.	
Deposit for postage to mail The Journal	25.00	Cut for illustration and work on electro for advertisers	4.82
3102—Southern Bell Tel. & Tel. Co.		3122—Southern Bell Tel. & Tel. Co.	
Telephone account to January 21, 1939	7.39	Telephone account to February 21, 1939	11.35
3103—Southern Press Clipping Bureau		3123—Herff-Jones Co.	
News clippings for December and January, 1939	10.00	President's Key for Dr. Grady N. Coker, president, 1938-1939	8.27
3104—Ivan Allen-Marshall Co.		3124—A. B. Dick Co.	
Index guides for filing cabinet	4.30	Mimeograph Ink and inspection of mimeograph machine	12.00
3105—Empire Letter Shop		3125—Edgar D. Shanks, M.D.	
Multigraphing 300 letters for Committee on Public Policy and Legislation	2.25	Salary for Secretary - Treasurer for February, 1939	200.00
3106—Edgar D. Shanks, M.D.		3126—H. L. Howe	
Salary for Secretary - Treasurer for January, 1939	200.00	Salary for Executive Secretary for February, 1939	192.50
3107—H. L. Rowe		3127—Darby Printing Co.	
Salary for Executive Secretary for January, 1939	192.50	Printing two issues of the Medical News, February 2, and February 28, 1939	42.00
3108—Cash		3128—Western Union Telegraph Co.	
Cash for P. O. order and fee to copyright the January, 1939 issue of The Journal	2.06	Telegraph account for February, 1939 for Committee on Public Policy and Legislation	6.41
3109—Webb & Martin, Inc.		3129—L. F. Livingston, Postmaster	
1,000 copies of the Basic Science Bill—4-page folder for the Com-			



Postage . . . . .	30.00
3130—Ansley Hotel	
Account in Cafe—luncheon for the Committee on Public Policy and Legislation . . . . .	17.25
3131—John Greer, Clerk of House of Representatives	
Daily copies of House Calendar during the regular session of the General Assembly of Georgia, January-March, 1939 . . . . .	50.00
3132—Addressograph Sales Corporation	
Buff cards for addressograph plates and ribbon for addressograph ma- chine . . . . .	1.65
3133—Miss Annie Jacks	
Commission on advertising orders	6.75
3134—Miss May Ferguson	
Copies of bills introduced in the General Assembly of Georgia dur- ing the regular session in which the Association was interested	15.00
3135—L. F. Livingston, Postmaster	
Postage . . . . .	30.00
3136—Webb & Martin, Inc.	
Printing and mailing 2,300 copies of the March, 1939 issue of <i>The Journal</i> . . . . .	460.08
3138—Cash	
Postoffice order and fee to copy- right the March, 1939 issue of <i>The Journal</i> . . . . .	2.06
<i>Checks returned unpaid:</i>	
April 2, 1938: Dr. Pleas Wilson, New- born, check returned and paid later . . . . .	7.00
November 28, 1938: The Coca-Cola Co., check returned and paid later . . . . .	15.00
March 17, 1939: Dr. Z. V. Johnston, Cal- houn, check returned account in- correctly written and paid later	77.00
Fulton National Bank—exchange Charged on non-par items . . . . .	12.76
Total . . . . .	\$15,668.90

#### AMERICAN ASSOCIATION OF PHYSICIANS AND SURGEONS

The 24th Annual meeting of the American Association of Industrial Physicians and Surgeons with the American Conference on Occupational Diseases and Industrial Hygiene will be held at the Hotel Statler, Cleveland, Ohio, June 5, 6, 7, and 8, 1939. A program of timely interest and importance will be presented by speakers of outstanding experience in all of the medical and engineering problems involved in industrial health. A cordial invitation is extended to all whose interests bring them in contact with these problems. Information regarding hotel accommodations, etc., may be obtained from A. G. Park, Convention Manager, 540 North Michigan Avenue, Chicago.

#### DIARRHEA IN ADULTS\*

FREDERICK E. MARSH, M.D.  
*Chattanooga, Tenn.*

A patient with diarrhea frequently offers a difficult medical problem. A detailed history will often aid materially in the diagnosis of the condition causing the diarrhea. If the diarrhea wakes the patient at night and gets him out of bed, he probably has an actual ulceration of the bowel; if it doesn't, he is more likely to have some of the more harmless functional diarrheas. If the desire for bowel movement is urgent and there is a great deal of tenesmus and distress even after the patient has had a movement, there is usually an inflammatory condition of the rectum or perhaps a carcinoma.

The use of the sigmoidoscope as well as a rectal examination with the index finger should be stressed. It is well also to use a barium enema followed by x-ray examination of the colon. The double contrast enema is preferable. With this technic, the barium suspension injected as an enema is passed by the patient and the colon is then distended with air. By this method with films taken stereoscopically one can see the inside wall of the colon and can recognize the presence of polyps and other small tumors. An examination of the stools for ova and parasites is always necessary; a gastric analysis is also essential. The latter test is important in ruling out an achlorhydria which is often the cause of a chronic diarrhea.

The causes of diarrhea are often obscure and not infrequently the diagnosis is impossible. Alvarez has made the following statement: "It may be a comfort to know that in a large percentage of patients with diarrhea who are studied most carefully with all the laboratory aids that are at the disposal of able clinicians in large institutions, no cause can be found for the disturbance. X-ray examinations will all be negative, no parasites or pathogenic bacteria will be found in the stools, a sigmoidoscopic examination will reveal a perfectly normal mucous membrane, the barium enema will show normal haustrations, the gastric juice will contain acid and

\*Read before the Seventh District Medical Society, Dalton, September 28, 1938.

the progress of a barium enema through the small bowel will be normal."

P. W. Brown of the Mayo Clinic has proposed the following classification of chronic diarrhea with approximate order of frequency:

I. Diarrheas attributable to demonstrable inflammatory disease of the gastro-intestinal tract (about one-third of the cases).

1. Chronic ulcerative colitis.
2. Parasitic infections mainly *E. histolytica*.
3. Diverticulitis of the colon.
4. Tuberculosis.
5. Malignancy.
6. Chronic bacillary dysentery.
7. Pancreatitis.

II. No demonstrable disease in the bowel (about two-thirds of cases).

1. Neurogenic disorders.
2. Irritable or unstable colon.
3. Allergic disorders.
4. Deficiency disorders.
5. Reflex disorders.
6. Achlorhydria.
7. Hyperthyroidism.

1. Chronic ulcerative colitis presents one of the worst types of diarrhea but fortunately this is a rare disease. The diplostreptococcus of Bagen is often present in the stools but this has not been generally accepted as the primary cause. The onset may be gradual or abrupt with sudden severe diarrhea and numerous stools. Mucus, pus and blood are found in the stools. In the acute exacerbations, the abdomen is tender and painful on palpation. Fever is common often swinging from subnormal to 105 degrees. The disease is of the cyclic type with periods of activity and intervals of quiescence.

Treatment of the disease has been far from satisfactory. Vaccines and sera as recommended by Bagen have offered very little help. A high vitamin diet with the calories as high as 3,000 daily is essential. An important point to remember is that milk in large amounts is poorly tolerated by these patients. In recent months, sulphanilamide has been used with good results in a limited number of cases and this drug seems to offer some hope for this very distressing condition. Surgical treatment is indicated for very sick patients who do not respond to medical treatment. Ileostomy and colostomy seem to be the operations of choice. Some surgeons advise excision of the colon and many good re-

ports have been made on this procedure.

2. The chief of the parasitic infections is amebic dysentery.\* The treatment of amebic dysentery consists of emetine hypodermically, grain  $\frac{1}{2}$  twice a day for six days or grain 1 daily for 12 days. Emetine usually cures the symptoms of amebic dysentery but very rarely cures the disease. After its use cysts persist and such drugs as carbarsone, yatren or treparsol are required to destroy the cysts. The patient's stool should be examined every three months for a year and every six months for another year and courses of treatment should be repeated so long as cysts can be found.

\*In the acute attack, the number of stools varies with the severity of the attack, the average number being 15 to 20 during 24 hours. In the stools there is a variable amount of mucus and blood. In the chronic condition, there is a history of frequent attacks of diarrhea with blood and mucus with periods of fairly good health intervening. Chronic amebic dysentery may persist 15 to 20 years.

3. Diverticulitis: The symptoms of diverticulitis are very variable, abdominal pain being the most common. Fever, possibly a chill and leukocytosis, may occur in diverticulitis. Tenesmus and blood in the stools with diarrhea may be present. Perforation may develop or the inflammatory process may extend to the tissues about the colon causing an abscess. When this occurs there is observed a clinical picture similar to perforative appendicitis involving of course the left side of the abdomen.

Treatment for milder symptoms of diverticulitis consist of a diet with low residue and oil enemas; also hot applications to the abdomen. If obstruction persists, surgical exploration with colostomy above the inflamed bowel should be carried out followed later by excision of the bowel after the inflammation subsides.

4. Tuberculosis of the bowel: Diarrhea is the most serious symptom of tuberculosis of the bowel. It may come on early but usually it is a late symptom of pulmonary tuberculosis. The diarrhea is not necessarily persistent. It may alternate with periods in which the stools are normal or there may be marked constipation. The tumor in the ileo-

cecal region is evident in the majority of cases and the consistency of the mass is described as doughy in contrast to the induration of carcinomatous masses. The lesions are usually found in the terminal portion of the ileum or in the cecum. Brown and Sampson found this region to be involved in 85 per cent of cases. The lesion may be mobile but most often is surrounded by adhesions so that it is more or less fixed.

5. Malignancy of the colon. In the early stages the symptoms are usually indefinite and consist of abdominal pain and discomfort and constipation in a patient whose bowels have been regular. If the patient is ordinarily constipated, there may be an exaggeration of the existing constipation. Diarrhea may be an early symptom due to irritation from a growth which does not cause a narrowing of the bowel. Sometimes acute obstruction occurs after a period of indefinite symptoms or obstruction may be the first manifestation. At this stage a tumor may be felt by rectal or abdominal examination. Anemia is prone to develop rapidly in tumors on the right side of the colon due to the fact that tumors in this region ulcerate so quickly. It is well to remember that a marked secondary anemia may be due to malignancy in the right half of the colon.

6. Chronic bacillary dysentery: Owing to improved sanitation, dysentery of the bacillary type has become less frequent. There are various strains of dysentery bacilli the chief of which are the Shiga bacillus discovered by Shiga in 1898 and the Flexner bacillus discovered by Flexner in 1900. In bacillary dysentery the onset of symptoms is usually sudden; the incubation period is often not more than 48 hours. There may be slight fever followed by abdominal pain and frequent stools. At first mucus is passed followed in 24 hours by blood in the stools. In the very acute cases the patient becomes toxic and delirious and death may occur on the third or fourth day. In cases of moderate severity the symptoms gradually abate, the stools lessen and within two or three weeks the patient is convalescent. There is also a subacute form which lasts several weeks during which the patient becomes greatly emaciated.

Treatment consists of colonic irrigations

with normal saline or soda. A polyvalent serum in doses of 40 to 80 cc. twice daily has been used with good results. A high vitamin diet is used similar to the diet used in chronic ulcerative colitis.

7. Regional Enteritis. This is a definite clinical entity which is characterized by recurring attacks of colicky abdominal pain, fever, diarrhea and weight loss. It usually occurs in young people from 25 to 30 years of age and the duration of symptoms range from 6 months to 3 years. There is usually felt a tender mass in the right lower quadrant; later stenosis of the intestine with obstruction often occurs.

Treatment for this condition is unsatisfactory. Obstruction or perforation may occur and require operation. Surgical excision of the tumor is rarely curative. Recurrence and extension of the process is to be expected. Some authorities advise permanent ileostomy.

6. Pancreatitis: The diarrhea of pancreatitis is a rare condition. It is characterized by bulky fetid stools containing an excess of fat. There is usually a great loss of fat, usually unsplit fat in the stools. Glycosuria occasionally results.

Treatment consists in drainage of the bile passages surgically. Removal of the gallbladder is sometimes more effectual than drainage alone.

We now come to the chronic diarrhea in which there are no demonstrable lesions in the intestinal tract. Mental states may affect profoundly the intestinal tract. These probably act through the autonomic nervous system, with the result of increased peristalsis. This type of diarrhea is known as nervous diarrhea and is common in adults as a result of emotional disturbances. One of my patients developed a marked diarrhea when he thought he was about to lose his job and ceased when business improved and he was certain his job was safe.

9. Irritable or Spastic colon: This condition is purely neurogenic and the mucus produced is a hypersecretion. McLoone has stated that the mode of living and eating of this generation with the rush and hurry of daily routine, lack of regular meals, proper foods and daily bowel evacuation contribute greatly to the etiology of this condition. The routine of the individual superimposed upon



a none too stable nervous mechanism produces the irritable bowel and the condition once established works in a vicious circle.

The symptoms of spastic colon are varied. There is usually constipation but there may be diarrhea. When diarrhea is present, it is never severe. There are never more than four to six stools daily. The presence of mucus in the stools is very distressing to the patients. Such symptoms as gaseous dyspepsia, eructations, periods of nausea and sometimes vomiting are symptoms which are commonly noted. Other affective disorders noted are nervous exhaustion, mental depression, headache, syncope and vertigo.

Treatment consists of re-education after an analysis of the patient's mental state has been made. He must realize that his symptoms are functional and can be alleviated largely through his own efforts. A bland diet with belladonna and mild sedatives are other measures generally helpful.

10. Food Allergy. The clinical features of food allergy are many and varied. The symptoms include nausea, vomiting, indigestion and pain. The pain is usually paroxysmal in type, lasting 24 to 48 hours. In the intervals between attacks no evidence of abdominal disease is noted. Some of the local signs of food allergy are canker sores, coated tongue, foul breath, sour stomach, diarrhea, constipation and proctitis; some of the general signs are weakness, irritability, nervousness, mental dullness, etc.

Treatment consists of avoidance of foods to which the patient is known to be sensitive. This is determined by elimination tests and skin tests. The elimination diets as recommended by Rowe have been used successfully in these cases. Ephedrine before meals in  $\frac{1}{2}$  grain doses may be helpful; also epinephrine hypodermically at the onset of an attack.

11. The deficiency disorders in which diarrhea is most commonly seen are primary anemia, pellagra and sprue. Sprue is a condition which is commonly seen in this section. It has often been overlooked until the disease has become far advanced. The chief symptoms in the disease are anorexia flatulence and epigastric fullness; also a sore beefy-red tongue and copious, pale, frothy stools which are most frequently noted in the early

mornings.

Treatment: Consists of liver extract, high protein low fat low carbohydrate diet; also calcium, yeast and cod-liver oil with viosterol.

In this connection, I might add that there are numerous cases of undetermined diarrhea which responds favorably to liver extract parenterally, together with a high vitamin diet. Whether these cases should be classed as early cases of sprue, I am unable to say. Apparently, they are due to a vitamin deficiency of some type.

Reflex disorders: Under this heading, may be mentioned certain circulatory disturbances such as those seen in cirrhosis of the liver and in chronic affections of the heart and lungs. These conditions may reflexly produce an enteritis with diarrhea as a prominent symptom. Certain cachectic conditions such as cancer, profound anemia and Addison's disease and nephritis may produce reflexly an enteritis with marked diarrhea.

Achlorhydria: In all cases of chronic diarrhea, it is important that a gastric analysis be made in order to rule out an absence of free hydrochloric acid in the gastric contents. If there is an absence of acid in the gastric contents, dilute hydrochloric acid is indicated. If it is going to help, it will do so within a few days. If it does not control the diarrhea then we should suspect some other condition the most likely being primary anemia.

Hyperthyroidism: Attacks of vomiting and diarrhea may occur in cases of toxic goiter. The diarrhea may be severe and distressing, recurring at intervals and without evident cause. Typical cases are recognized easily but certain signs should suggest the possibility of hyperthyroidism: (1) tachycardia, (2) rapid emaciation, (3) diarrhea without evident cause, (4) nervous disturbances otherwise difficult to explain. When there is any doubt, basal metabolic rate should clear up the diagnosis.

In the management of chronic diarrhea, it is well to speak of the proper food for the patient rather than to use the word "diet." A printed diet slip for any one type of diarrhea is impossible and absurd. For a diet to be proper it must be adequate in kind and quantity and it must be individually adapted. A basic, low residue non-irritating diet is neces-

## THE PRESIDENT'S PAGE

## NINETIETH ANNUAL SESSION

The ninetieth annual session of the MEDICAL ASSOCIATION OF GEORGIA was, as anticipated, an outstanding event in the history of the Association. It was the culmination of an arduous and successful year under the leadership of Dr. Grady N. Coker.

An unprecedented membership of nearly two thousand and a registration of more than eight hundred and fifty belies the statement that organized medicine is on the decline. This record membership is in keeping with the experience of other states, and the American Medical Association, the membership of which has increased more rapidly during the last three years than at any like period in its history. This wholesome state of affairs is partly due, at least, to the attacks by our enemies within and without the profession. This is probably very disconcerting to those who preach disintegration.

The scientific program covered a wide variety of subjects and reflected the progressive spirit and interest of the members. Dr. Harry H. Shoulders, Speaker of the House of Delegates of the American Medical Association, was given hearty response when he spoke on "Some Phases of Medical Economics." He spoke with authority and clarity upon the subject to which he has given so much time and thought.

The Committee on Scientific Exhibit is deserving of especial commendation for its efforts. Such exhibits are now recognized as having educational value of even greater possibilities than the program itself.

Committee reports submitted to the House of Delegates were generally well prepared, and showed that our members accept the responsibility of trying to solve the economic problems of medical practice.

It is especially important that every member of the Association familiarize himself with the report of the Delegates to the American Medical Association, for it contains much well chosen information presented in an interesting way. It is believed that every member can read this report with benefit to himself and to the Association.

The Secretary-Treasurer's report showed not only an increase in activities, but a very healthy state of the treasury. This is indeed gratifying in these times of economic insanity, and reflects great credit upon the ability and business acumen of the Treasurer.

The social features were truly in keeping with the spirit of Atlanta. Hospitality and good taste characterized every feature of these enjoyable diversions.

There are many problems before the medical profession, mostly economic, which have disturbed physicians all over the country. Socialized medicine, group hospitalization, and allied subjects, have been discussed ad nauseam. It is my opinion that a little rest is sometimes advantageous. This course seems desirable at present, since there has been a strong reaction against the government as a result of its unwarranted attacks. There is great probability that agitation in favor of the wild schemes by the government will cease. It is also very likely that the indictment of the American Medical Association will be gladly dropped, for it acted as a boomerang against the government, and defeated its own purpose. Believing as I do that we need a rest from the discussions of displeasing subjects, I shall take up the time-honored but nonetheless important subject of "Better Health for Georgia." This I shall make the leading issue of my stewardship. I shall use all of my influence to support the State Board of Health in its plans, and am assured of its full cooperation in these endeavors.

We all know that a great service to the people of our State can be rendered by teaching them the way to better health. It is only through education that health conditions can be improved. Legislation must follow and not precede education. I realize that this is no job for one man, therefore, I shall call upon every member of the Association to help carry out this program.

I also urge all reputable physicians to become members of their county societies in order that a united effort may be directed to the solution of our problems.

WM. H. MYERS, M.D.

# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

MAY, 1939

## NINETIETH ANNUAL SESSION

The Ninetieth Annual Session of THE MEDICAL ASSOCIATION OF GEORGIA—The Atlanta Session of 1939—has become history.

Eight hundred fifty-one members and visiting physicians registered for the session. More than two hundred members of the Woman's Auxiliary, including several guests, joined their husbands and participated in the various business, scientific and social activities of the meeting.

The House of Delegates and the Council attended to the business of the Association, which was expedited with the following major points in mind: the advancement of human welfare through the prevention of disease, more adequate medical and hospital care for those who are ill, or who may become ill; improved medical education, which includes post-graduate study; and better medical organizations, particularly county medical societies.

The Association's scientific sessions were well attended despite the diversified interests of its members. The scientific exhibit reflected the creditable work of many of our members, and was praised by all persons who saw it. Commercial exhibitors displayed new medical books, new surgical instruments, new diagnostic equipment and many supplies that are used in caring for the sick.

Invited guests who addressed the Association were: Dr. John S. Lundy, Rochester, Minn., professor of anesthesia at the University of Minnesota and chief of the anesthesia department of the Mayo Clinic; Dr. H. H. Shoulders, Nashville, Tenn., speaker of the house of delegates of the American Medical Association; Dr. Lawrence Fallis, Detroit, surgeon to the Henry Ford Hospital, and Hon. Robert F. Maddox, Atlanta, chairman of the Georgia State Board of Health.

While business and scientific meetings weighed heavily upon the time of each person in attendance at the meeting, ample time was

found to enjoy the many social functions. The Fulton County Medical Society and its Woman's Auxiliary were the principal hosts to the Association. In addition, many individuals and societies entertained for the pleasure of the officers, members and guests. All were gracious, and to each of them the officers of the Association express thanks. It has been said that anything which is pleasant to a human being is either illegal, immoral or fattening. The Atlanta Session was certainly fattening—both in scientific knowledge and added calories—and will be long remembered by those who were privileged to attend.

## OFFICERS FOR 1939-40

Officers of THE MEDICAL ASSOCIATION OF GEORGIA for 1939-40 are: Dr. Wm. H. Myers, Savannah, president; Dr. J. C. Patterson, Cuthbert, president-elect; Dr. Mark S. Dougherty, Atlanta, first vice-president; Dr. A. A. Rogers, Commerce, second vice-president; Dr. Jno. W. Simmons, Brunswick, parliamentarian, and Dr. Edgar Shanks, Atlanta, secretary-treasurer.

Dr. W. A. Selman, Atlanta, was elevated to the chairmanship of Council. New members of the Council are: Dr. C. K. Wall, Thomasville; Dr. S. P. Kenyon, Dawson, and Dr. Z. V. Johnston, Calhoun. Dr. D. L. Wood, Dalton, is a new vice-councilor.

## AWARDS FOR SCIENTIFIC EXHIBITS

The following physicians will receive certificates of merit for their scientific exhibits at the Ninetieth Annual Session of THE MEDICAL ASSOCIATION OF GEORGIA.

*First award:* Cancer Commission of the Medical Association of Georgia, Dr. J. L. Campbell, chairman. Exhibit—Cancer.

*Second award:* Dr. Geo. A. Williams, Atlanta. Exhibit—Improvised Gynecologic Apparatus.

*Third award:* Drs. H. C. Sauls and Carter Smith, Atlanta. Exhibit—Electrocardiographic Studies.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*



# JOB CALDWELL PATTERSON, M.D.

Dr. Job Caldwell Patterson, of Cuthbert, was elevated to the position of President-elect of THE MEDICAL ASSOCIATION OF GEORGIA at the ninetieth annual session of the Association, held in Atlanta. He will become President in 1940.

Of distinguished Scotch-Irish ancestry, Dr. Patterson was born in Lumpkin, Georgia, June 6, 1892. His parents were John T. and Elizabeth (Humber) Patterson, both of whom were born and reared in Stewart County, Georgia. His paternal great-great-grandfather, an editor, was banished from Ireland early in the nineteenth century because of his connection with Robert Emmet's activities. His mother's people were originally from Denmark, but later moved to England, where they settled near the Humber River.

Dr. Patterson obtained his preliminary education in the Lumpkin (Georgia) High School, from which he was graduated with honors. In 1909 he matriculated at the Atlanta College of Physicians and Surgeons (now the School of Medicine of Emory University) and, after four years of arduous study, received his degree of Doctor of Medicine and an honorary certificate, in 1913.

Possessing a keen thirst for more knowledge, and having gained his degree at the age of 21, Dr. Patterson sought an internship in Grady Hospital, Atlanta, where he served for two years. Upon completion of his hospital work, he was associated in practice for a short time with Dr. T. C. Davison, of Atlanta; but when a vacancy occurred in the resident surgeon's position at Grady Hospital he was requested to assume the responsibilities of that important position, where he served another two years.

In 1916 Dr. Patterson was commissioned a medical officer in the United States Army and accompanied troops to Mexico. When war was declared against Germany, in 1917, he joined the Thirty-first Division in Macon, and was made director of field hospitals, with the rank of Major. He accompanied this division to France where he served with credit to his country.

Following the Armistice, Dr. Patterson took a post-graduate course at the Universite D'Aix-Marseille, Marseilles, France, and de-



JOB CALDWELL PATTERSON, M.D., Cuthbert  
President-elect, 1939-1940

voted special attention to surgery, gynecology and pathologic anatomy. Upon his return to the United States he enhanced his knowledge with more studies at the Mayo Clinic, Rochester, Minn.

In 1920, Dr. Patterson became associated in practice with his uncle, Dr. F. D. Patterson, of Cuthbert, where he has since resided. Soon they established the Patterson Hospital which has been successfully operated for almost two decades.

Dr. Patterson has long been identified with organized medicine and is qualified to fill the position to which he was elected. He has served as Councilor of the Third District of THE MEDICAL ASSOCIATION OF GEORGIA for nine years, and has occupied numerous other positions of trust. His affiliations with medical organizations include: the Randolph County Medical Society, the Medical Association of Georgia, the Southern Medical Association, the American Medical Association, the Chattahoochee Valley Medical Association, the American College of Surgeons and the Southeastern Surgical Con-

gress. He holds fellowships in the two last named organizations. He is county physician for Randolph County, and local surgeon for the Central of Georgia and Seaboard Air Line railroads.

Although one of Georgia's most active professional men, Dr. Patterson finds time for diversified interests. He is a member and past president of the Cuthbert Rotary Club, is a 32nd Degree Mason, a member of the Shrine and a member of the Phi Chi medical fraternity. His hobbies are: reading biographies and auto-biographies, golf and fishing.

In 1919, Dr. Patterson was married to Miss Marie King, of Columbus, Georgia. They have one daughter, Ann, aged 12.

#### PRINCIPLES OF INFANT FEEDING

In this brief discussion of the principles of infant feeding it seems wise to consider certain outstanding aspects, such as adequacy of constituents for each individual case, cost of feeding and sanitation. These are some of the factors over which we, as practicing physicians, have control, and upon which, to a great extent, depend our success or failure.

Granted, the simplest and usually the most adequate, the cleanest, and the most individualized early food for the child is breast milk. Using this as early feeding, only one aspect may require modification, that of adequacy. Breast milk is still, and probably always will be, the food of choice. We should not cease in our efforts to make the modern mother realize this. However, for one reason or another complementary or supplementary feedings are often necessary. Great advances have been made in the past forty years and it is to our advantage to use the knowledge acquired intelligently. The principles of successful complementary feeding are determined chiefly with composition of breast milk as a fundamental structure.

For the majority, modification of whole cow's milk, certified or pasteurized, or evaporated milk, using water and added sugar, is satisfactory. Evaporated milk is, for the average patient, the cheapest milk to be purchased. It is the cleanest, and the preparation of the formula is relatively simple. The standard dilution for the average baby is one part milk to two parts water, with a carbohydrate

in form of cane sugar, Karo syrup, or a proprietary form, which is usually more expensive, added to make a seven per cent carbohydrate content. In many cases lactic acid is advisable for its effect both as a bacteriostatic agent and in increasing the digestibility. Occasionally, for special cases, preparations such as Dryco with a low fat content, are useful. There are many other preparations of both milk and sugars available for individual cases. However, this discussion is designed to include the majority of fairly normal cases.

Adequacy of food implies sufficient quality and quantity of constituents as applied to each individual case. The fundamental formulas will usually suffice. It is often found in difficult feeding cases that the calories are quite adequate and balanced but that the volume is lacking. The reverse may also be true. This is particularly true if the formulas suggested by the manufacturers, both in the past and in the present, are followed too closely. Two types of infants will require more modification of the formula: first, the small or premature infants whose growth requirements are greater, particularly when they really start to grow; and second, the group of large or long babies. Both may, or will, demand in no uncertain voice, more quality, and often more quantity. Their wants seem excessive if one goes by rule of book. But the only way to achieve peace and keep the patient is to carefully accede to the demands, depending of course upon the limits of digestive tolerance in each case, as shown by "spitting up," or diarrhea. Diarrhea may occur either with overfeeding or under-feeding as well as for other reasons. Often the quantity cannot be increased in proportion to the quality. I am becoming convinced that there is very little "classical colic," and that most of the difficulties are to be traced to hunger on the basis of either too few calories or too little fluid.

Most normal babies can, and should be, both for their own sake and for that of their mothers, placed on a four hour schedule. The mother is thus allowed to plan her own life and do her feeding task carefully and intelligently. If the infant is adequately fed as to calories and ounces he will be quite satisfied, and there will be no complaints. Again, premature infants at first may require two to



three hour feedings, but should be on four hour schedule as soon as possible. Regularity of these hours is important.

Simplicity in adding supplemental foods when the proper time comes is quite important because of a possibility of the occurrence of eczema. Consensus of opinion as to proper time varies from three to six months of age. If mixtures of cereals or vegetables, with effects upon the baby unknown, are added and the "food rashes" develop, it sometimes takes a veritable detective to locate the trouble. It is a known fact that a rash, once well developed, often means a "lost patient" and certainly means difficulty. Certain much advertised cereal mixtures, when used as initial cereal feeding, have caused a great deal of grief because the child was intolerant of one or more of the cereals in the mixture. New foods should be added one at a time and at least two to three day intervals. One may even go to the extreme of having each mother keep a food diary, if a possibility of eczema is feared. With babies who seem to be excessively fat, despite care in avoiding overfeeding carbohydrates, it would seem wise to add low carbohydrate foods, such as vegetables or eggs, first. They seem to be well tolerated, even in the young infant. Egg yolk also has its value in combatting the common anemia which occurs in infants from three to six months of age; and some iron is advisable in these anemic children.

No discussion of the principles of infant feeding would be complete without some attention to the vitamins. It has been shown that breast fed infants derive an adequate supply of vitamin C in their milk, at least during the first months of life. Otherwise, vitamin C in some form must be added at an early age. Fortunately this vitamin is now available in synthetic form. In this I refer particularly to the babies who seem to develop rashes when orange or tomato juice is given. Amazingly, vitamins B, D, and A, make their appearance each day in new and varied forms. Most of us would begin to suffer from "vitamania" if we tried to follow each preparation. Undoubtedly, the concentrates which require drop dosage are advantageous. They are easier for the mother to administer, and are better tolerated by the

child. Vitamins D and A should be started at two to three weeks—even in the breast baby—if only as a precaution. Some of the vitamin B preparations seem to be proving most helpful as "appetizers," particularly in the presence of colds and minor illnesses, during which children could eat normally but tend to develop anorexia. There are a number of these preparations available. Only experience will determine which is most satisfactory. The best procedure with all vitamins, I believe, is to use at the most two or three preparations of each vitamin, administering them in dosage calculated in biologically standardized units.

There are several practical points with reference to sanitation which we as physicians are likely to overlook. Milk may be pasteurized, but that is not sufficient. In fact it may give a false sense of security. Dairies producing pasteurized milk should be subjected to frequent inspection, and their products tested at unexpected intervals, as the mere process of pasteurization is not sufficient to guarantee protection. It is common practice to leave the milk sitting in the sun for early morning deliveries, or out of the ice box in the kitchen for some length of time. Illness resulting from such carelessness should not necessarily be blamed on the dairy. Cooperation with the public health authorities in facilitating frequent inspection, and bacterial counts; and in education of the public as to what they should expect in milk supply, and the part they may play in control of such matters, is chiefly dependent upon the pediatrician in many communities. It is certainly the responsibility of the doctor who cares for the majority of babies to see that the milk source is safe, the milk supply is kept clean, through the processes at the dairy, on the delivery route, at the front doorstep, and in the kitchen and preparation of the formula.

Finally, I believe in the ultimate goal of having as patients infants who are happy, have a minimal morbidity, are well fed, gaining at respectable rates, with no evidence of deficiency in vitamins and iron; and of having mothers who are not outdone with detail work.

HELEN BELLHOUSE, M.D.



## EMORY MEDICAL ALUMNI CLINICS

MAY 30 TO JUNE 2, 1939

TUESDAY, MAY 30

*Morning*

8:00-10:00—Registration at College Bldg., Armstrong and Butler Streets.

Grady Hospital White Unit:

Surgical Clinics. Drs. J. G. Riley, Lynn Fort, and Wadley Glenn.

Urological Clinics. Drs. Steve Brown and W. E. Upchurch.

Grady Hospital Emory Unit:

Surgical Clinic. Dr. Dan Elkin.

Lecture Room. Dr. B. C. Bird presiding.

8:30- 9:30—Rectal Bleeding. Dr. Marion C. Pruitt.

9:00- 9:30—The Mechanics of Perineorrhaphy. Dr. B. T. Beasley.

9:30-10:00—Pyelonephritis. Dr. M. S. Dougherty.

10:00-10:30—Acne Vulgaris. Dr. Cosby Swanson.

10:30-11:00—Clinical Management of Goiter. Dr. D. H. Poer.

11:00-11:30—Syphilitic Heart Disease. Dr. Jack C. Norris.

11:30-12:00—Sulfanilamide in Surgery. Dr. W. A. Selman.

*Afternoon*

12:00- 1:00—Differential Diagnosis, Pathology, and Treatment of Rheumatoid Arthritis. Drs. E. Van Buren, A. J. Merrill, and V. E. Powell.

2:00- 2:30—Artificial Fever. Drs. E. G. Ballenger, Omar F. Elder, H. P. McDonald, and R. C. Coleman.

2:30- 3:00—Sterility in Women. Dr. E. H. Greene.

3:00- 3:30—Low Back Pain. Drs. T. P. Goodwyn and H. W. Jernigan.

3:30- 4:00—Unusual Urological Cases (Lantern Slides). Dr. S. A. Kirkland.

WEDNESDAY, MAY 31

*Morning*

Grady Hospital White Unit:

8:00-10:00—Surgical Clinics. Drs. Geo. Fuller, D. H. Poer, and Jessie H. York.

Rectal Operative Clinic. Dr. Marion C. Pruitt.

Grady Hospital Emory Unit.

Lecture Room. Dr. Hugh Hailey presiding.

8:30- 9:00—Orthopedic Aspect of Chronic Arthritis. Dr. Joseph Boland.

9:00- 9:30—Fractures of the Skull. Dr. Exum Walker.

9:30-10:00—X-Ray and Radium in Gynecology. Dr. J. F. Denton.

10:00-10:30—Evaluation of Percussion in Heart Disease. Dr. W. R. Crowe.

10:30-11:00—Treatment of Procidencia (Moving Pictures). Drs. Shelley Davis and Ingraham.

11:00-11:30—Infectious Mononucleosis. Dr. R. R. Kracke.

11:30-12:00—Vesico-vaginal Fistulae. Dr. M. T. Harrison.

*Afternoon*

12:00-12:30—Emypema in Children. Dr. J. D. Martin.

12:30- 1:00—Congestive Heart Failure. Dr. J. E. Paullin.

Lecture Room. Dr. J. W. Chambers presiding.

2:00- 4:30—Symposium in Pediatrics.

Sulfaphyridine and Sulfanilamide in Children. Dr. Jos. Yampolsky.

Infant Feeding. Dr. W. W. Anderson.

Diarrhea. Dr. Roger W. Dickson.

Cough. Dr. W. H. Kiser.

Pathology and Resuscitation in the Stillborn. Dr. C. Dixon Fowler.

THURSDAY, JUNE 1

*Morning*

Grady Hospital White Unit

8:00-10:00—Gynecological Clinic. Dr. L. G. Baggett.

Grady Hospital Emory Unit.

Gynecological Clinic. Dr. Walter Holmes.

Lecture Room. Dr. B. C. Bird presiding.

8:30- 9:00—Trichomonas Vaginalis. Dr. M. T. Benson, Jr.

9:00- 9:30—Surgery in Neurotics. Dr. Kells Boland.

9:30-10:00—The Diagnosis of Skin Tumors. Drs. Howard Hailey and Hugh Hailey.

10:00-10:30—Clinical Manifestations of Disorders of the Autonomic Nervous System. Dr. Richard Wilson.

10:30-11:00—The Diagnosis of Brain Tumors. Dr. Edgar Fincher.

11:00-11:30—Surgery of the Stomach. Dr. F. K. Boland, Sr.

11:30-12:00—Carcinoma of the Thyroid. Dr. T. C. Davison.

*Afternoon*

12:00-12:30—Cancer Diagnosis: Do's and Don'ts. Dr. J. J. Clark.

12:30- 1:00—Bronchiectasis. Dr. C. C. Aven.

2:00- —Varicose Vein Clinic. Dr. C. E. Rushin.

2:00- 2:30—Conservative Measures in Prostatic Hypertrophy. Dr. S. J. Sinkoe.

2:30- 3:00—Differential Diagnosis of Cancer, Benign Hypertrophy and Inflammatory Enlargement of the Prostate. Drs. M. K. Bailey and C. A. Eberhart.

3:00- 3:30—Pathology of the Umbilical Cord. Dr. C. B. Upshaw.

3:30- 4:00—Demonstration of the Use of Forceps. Dr. W. C. Goodpasture.

4:00- 4:30—Indications for Cesarean Section. Dr. R. A. Bartholomew.

*Evening*

8:00 Meeting of the Fulton County Medical Society, 38 Prescott St., N. E. Everyone is cordially invited to attend.

## FRIDAY, JUNE 2

*Morning*

Lecture Room. Dr. B. C. Bird presiding.

8:30- 9 00—Cirrhosis of the Liver. Diagnostic Aids. Dr. C. W. Strickler, Jr.

9:00- 9:30—Cancer of the Stomach. Dr. I. A. Ferguson.

9:30-10:00—Vitamin Fallacies. Dr. Harold Bowcock.

10:00-10:30—Abdominal Surgery in Children. Presentation of Cases. Drs. Lon Grove and K. R. Bell.

10:30-11:00—Newer Methods in the Management of Nephritis. Dr. Hugh Wood.

11:00-11:30—Brucellosis. Dr. A. P. McGinty.

11:30-12:00—Irritative Skin Eruptions. Dr. H. S. Alden.

*Afternoon*

12 00-12:30—Carcinoma of the Breast. Dr. J. L. Campbell.

12:30- 1:00—Treatment of Coronary Disease. Dr. Minor Blackford.

*Evening*

7:00 Annual Banquet, Biltmore Hotel.  
Alumni Address, Dr. F. K. Boland, Sr.

## NEW MEMBERS

THE MEDICAL ASSOCIATION OF GEORGIA was started with less than one hundred members. Today, its membership roll shows the names of almost two thousand physicians.

Since the World War there has been a gradual decrease in the number of physicians residing in Georgia, but there has been a steady rise in the number of physicians affiliated with organized medicine. However, it is true that there are many physicians in the State who have failed to become members of county medical societies. Some of them are not eligible to membership; some are engaged in business and are no longer interested in medical affairs; a few have not joined because of dues or, perhaps, personal reasons; some are incapacitated and think they are through; but the majority are just indifferent.

To all physicians who can qualify for membership in their respective county medical societies, this Association extends the hand of fellowship. To each county medical society, the officers of this Association would be most grateful for cooperation in securing new members.

## DIARRHEA IN ADULTS

(Continued from page 204)

sary but additions and changes must be made as common sense indicates for each patient. With a hyperactive bowel, a small amount of residue-containing foods should be consumed. P. W. Brown states it is hard to convince patients to eat broiled steaks and chops whereas they don't object to milk and yet the residual bulk of milk is much greater than is that of meat. With the exception of allergic cases, stress should be placed on eating a good variety of properly and tastefully prepared foods. At first the disturbed bowel may not tolerate an adequate diet so that temporary additions of vitamin concentrates are necessary. In some instances a good diary in which all items are carefully detailed may afford the clue. Brown recommends tincture of iodine 10 drops three times daily for four or five days in treatment of acute diarrhea.

As to medication in chronic diarrhea, I might mention there is no drug of particular value in ulcerative colitis. In deficiency states, intramuscular injections of liver are important; also blood transfusions are frequently of great assistance. Sedatives and opiates have their proper places and should be used to give the patient rest from pain as well from nervous tension.

Use of vaccines from predominant bacteria in a patient's stool have not been of much value. Colonic irrigations are mentioned only to condemn them as a routine treatment for diarrhea. There is no objection to an occasional warm saline enema but the routine procedure of washing out the bowel and adoption of dietary fads are some of the procedures that will insure often continuation of the diarrhea.

AMERICAN BOARD OF INTERNAL  
MEDICINE, INC.

Written examinations for certification by the American Board of Internal Medicine will be held in various sections of the United States on the third Monday in October and the third Monday in February.

Formal application must be received by the Secretary before August 20, 1939, for the October 16, 1939 examination.

Application forms may be obtained from Dr. William S. Middleton, Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin, U. S. A.

**WOMAN'S AUXILIARY : OFFICERS 1939-1940**

President—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

President-elect—Mrs. H. G. Banister, Ila.

First Vice-President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Second Vice-President—Mrs. C. H. Richardson, Milledgeville.

Third Vice-President—Mrs. Loren Gary, Jr., Shellman.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

Treasurer—Mrs. R. A. Woodbury, Jr., 1232 Belmont Drive, Augusta.

Historian—Mrs. J. L. Nevill, Metter.

Parliamentarian—Mrs. L. W. Williams, 135 East 45th Street, Savannah.

**CHAIRMEN OF COMMITTEES**

Organization—Mrs. H. G. Banister, Ila.

Health Education—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Hygeia—Mrs. C. H. Richardson, Milledgeville.

Scrapbook—Mrs. Loren Gary, Jr., Shellman.

Student Loan Fund—Mrs. Ralph H. Chaney, Forest Hills, Augusta.

Health Films—Mrs. Fred Rawlings, Sandersville.

Public Relations—Mrs. Stewart Brown, Royston.

Legislation—Mrs. G. Lombard Kelly, University Place, Augusta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Doctors Day—Mrs. Bruce Schaefer, Toccoa.

Research in Romance of Medicine—Mrs. C. M. Burpee, 1127 Monte Sano Avenue, Augusta.

Jane Todd Crawford Memorial—Mrs. T. J. Ferrell, Waycross.

Revisions—Mrs. Jas. N. Brawner, 2800 Peachtree Road, Atlanta.

Trophy, Mrs. Jas. N. Brawner—Mrs. Warren A. Coleman, Eastman.

Archives—Mrs. J. Bonar White, 769 Penn Avenue, N. E., Atlanta.

Exhibits—Mrs. J. Bonar White, 769 Penn Avenue, N. E., Atlanta.

Awards—Mrs. J. Bonar White—Mrs. J. A. Redfearn, Albany.

Memorials—Mrs. J. A. Corry, Barnesville.

**State Convention**

Mrs. Eustace Allen, Atlanta, was installed as president of the Woman's Auxiliary to the Medical Association of Georgia at the closing session on April 27 at the Biltmore Hotel in Atlanta and Mrs. H. G. Banister, Ila, was named president-elect. Names and addresses of new officers and committee chairmen are printed above.

Mrs. Warren Coleman, Eastman, retiring president, presided over the sessions and presented an excellent report to the convention and another to the House of Delegates. These reports and the minutes of the convention will be published in early issues of *The Journal*.

The Baldwin County Auxiliary, Mrs. C. H. Richardson, president, won the Mrs. James N. Brawner Cup for outstanding work during the year. Fulton county, Mrs. B. L. Shackleford, president, and Dodge county,

Mrs. J. Cox Wall, president, received honorable mention.

Mrs. James N. Brawner, beloved first president of the State Auxiliary, was named honorary president for life.

**National President Visits**

Mrs. Charles C. Tomlinson, Omaha, Neb., president of the Woman's Auxiliary to the American Medical Association, paid an official visit to the Georgia Auxiliary on April 11.

Mrs. Warren A. Coleman, Eastman, president of the Georgia group, honored Mrs. Tomlinson at luncheon at the Henry Grady Hotel, and invited her to meet members of the State Executive Board.

The Fulton County Medical Society complimented the distinguished visitor at tea at the Academy of Medicine on Prescott Street. Receiving the guests were Mrs. Tomlinson, Mrs. Coleman, Mrs. Eustace Allen, president-elect of the State Auxiliary; Mrs. Bernard L. Shackleford, president of the hostess group; and Mrs. F. M. Barfield, president-elect of the latter group.

Mrs. Ed H. Greene presided at the tea table and assisting in entertaining were the following committee chairmen of the Fulton Auxiliary: Mrs. W. A. Smith, entertainment; Mrs. C. C. Aven, house; Mrs. Marion Pruitt, courtesy; Mrs. J. R. Childs, hospitality; and Mrs. J. C. Blalock, decorations.

**Fifth District**

The annual spring meeting of the Woman's Auxiliary to the Fifth District Medical Society was held on April 13 at the Academy of Medicine, following a buffet supper at which the women entertained the members of the Fifth District Medical Society. Mrs. Eustace Allen and Mrs. Olin S. Cofer poured coffee.

Mrs. George Williams, president, presided over the business meeting and Mrs. E. Y. Walker, Jr., secretary, read the minutes. Mrs. Eustace Allen, president-elect of the State Auxiliary, spoke on an "Informed Auxiliary Member" and Dr. Ed H. Greene, president of the Fulton County Medical Society, told "How an Auxiliary Can Assist the Medical Profession." Dr. A. Benson Cannon, of New York City, gave a talk on "Cosmetics in Dermatology."



Each county in the district was represented. An excellent report from Mrs. Bernard L. Shackleford, president of the Fulton County Auxiliary, was read and Mrs. Shackleford was given a rising vote of thanks for her splendid leadership. Mrs. J. Harry Rogers, press and publicity chairman, was also given a rising vote of thanks for her work.

After the meeting, Dr. and Mrs. Olin Cofer honored the visitors and members who attended the two meetings at an open house in their home on Lullwater Road.

#### *Fulton County*

The Woman's Auxiliary to the Fulton County Medical Society met on April 7 at the Academy of Medicine on Prescott Street, Mrs. Bernard L. Shackleford, president, presided. Dr. W. R. Bell spoke on "The Medicine We Take" and Mrs. Ralph Mosteller, Cancer chairman, showed a cancer film.

A nominating committee, composed of Mrs. Stephen Brown, chairman, Mrs. Mason Lowance, Mrs. Gaston Gay, Mrs. Edgar Shanks and Mrs. Walker Jernigan was elected to present a slate of officers at the next meeting. Mrs. Eustace Allen, Doctor's Day chairman, reported that flowers were sent to doctors on that day. Following the meeting, members were entertained at luncheon.

#### *Bulloch-Candler-Evans*

The regular meeting of the Bulloch-Candler-Evans Counties Auxiliary was held on April 12 in Metter. Mrs. John Mooney, of Statesboro, was appointed delegate to the state convention in Atlanta. Reports were made of the first district meeting which was held in Statesboro on March 15 and the banquet given by the Auxiliary on Doctor's Day honoring the doctors of the three counties.

#### *Washington County*

The Woman's Auxiliary to the Washington County Medical Society met at the home of the president, Mrs. F. B. Rawlings, March 23. Nine members answered to roll call. After the minutes were read and approved, items of business were discussed and disposed of. Mrs. W. M. Cason and Mrs. N. Overby were elected delegates to the State meeting to be held in Atlanta. Mrs. Emory Newsome and Mrs. Almo Lozier were elected as alternates.

At the close of the business meeting, Tommie Gilmore gave a reading and Miss Mary Lozier gave a piano solo. Miss Gertrude Perkins of Charleston, S. C., was a visitor.

Mrs. Rawlings served coffee, sandwiches and cookies. The auxiliary's next meeting will be held at the home of Mrs. Lozier, the fourth Thursday in June.

#### *Georgia Medical Society*

At the annual meeting of the Women's Auxiliary to the Georgia Medical Society held at the home of Mrs. Lee Howard on April 15, Mrs. L. W. Williams was re-elected presi-

dent. Other officers elected were: Mrs. James C. Metts, first vice-president; Mrs. R. Lester Neville, second vice-president; Mrs. R. V. Martin, corresponding secretary; Mrs. John W. Daniel, Sr., recording secretary; Mrs. J. H. Pinholster, treasurer.

Mrs. Lee Howard reported on the meeting of the First District Auxiliary held in Statesboro. The call to the State convention was read and Mrs. Wm. Myers and Mrs. Otto W. Schwalb were named delegates to the convention.

Mrs. S. P. Sanford, chairman of Research and Romance of Medicine, read some interesting notes from newspaper reports at the time of the Yellow Fever epidemic. The program of the meeting was devoted to Jane Todd Crawford Memorial. Mrs. Charles Usher gave a beautiful reading on Jane Todd Crawford. Violin music accompanying the reading was played by Mrs. Otto W. Schwalb.

Mrs. Williams in giving her annual report as president, reviewed the year's activities and told of the splendid progress of the Auxiliary during the past year. Nine new members have been added.

A social hour was enjoyed after the meeting. Hostesses for the meeting were Mrs. Lee Howard, Mrs. S. P. Sanford, Mrs. W. O. Bedingfield, and Mrs. Leonard J. Rabhan.

The Auxiliary observed Doctor's Day, began the day's program with a "Prayer for Our Doctors" given by the minister at the morning chapel of the air over WTOG. Flowers were sent for the graves of deceased doctors and notes and flowers to the widows of doctors and to the doctors who were ill. A tribute to the doctors over the radio was given by Mrs. J. S. Howkins, whom members affectionately refer to as the Dean of the Auxiliary.

Later in the evening a reception and dance was held at the Shrine Country Club, to which all the doctors and their wives were invited.

#### A. M. A. OFFICERS WILL DELIVER RADIO TALKS FROM ST. LOUIS

Irvin Abell, M.D., Louisville, Ky., president of the American Medical Association, spoke on "American Medicine Today," in a radio broadcast Monday, May 15, over the Blue network of the National Broadcasting Company, from St. Louis, as part of the opening day program of the Association's annual five-day session. Rock Sleyster, M.D., Wauwatosa, Wis., president-elect, was interviewed over the Columbia Broadcasting system on the same day by Miss Jane Stafford, of Science Service.

Few physicians die of tuberculosis despite the fact that they are constantly exposed to it. Knowledge defends them as it may yet defend other groups when properly educated in self-protection.

## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

## COOPERATION AT ITS BEST

The spirit of cooperation has characterized the medical profession for years, and as evidence of continued and worthwhile interest many private practitioners in rural areas of Georgia have expressed a desire to conduct "well baby" health centers in their respective communities. During the past two years physicians in more than forty counties have accepted the idea and are to be congratulated for their interest and participation in these health centers. Each month new centers are being established and none has been abolished.

Of late much has been said and written concerning the education of the public in regard to present medical knowledge. Various publications have included articles that announced the last word concerning the diagnosis or treatment of numerous diseases. In many instances this has resulted in misinformation, or a misinterpretation of facts. The family physician is the best teacher, but the opportunity to instruct his constituents is usually limited to persons in ill health. The "well baby health center" provides an opportunity for the physician to educate the parents regarding the need of the child.

It does not require the employment of a complex analytical formula to prove that many diseases and deaths result from ignorance. The irritating "night call" frequently means that patients have procrastinated during the day, or failed to appreciate the warning signal. Is it uncommon for a parent to delay calling the physician until the last home remedy has failed? How often does the home remedy prove harmful? Parents must be taught that the symptoms of disease are difficult for a physician to evaluate and impossible for the layman to interpret.

The children admitted to the health center consist of those referred by the physician or whose mother was attended by a midwife. Civic groups usually sponsor these centers resulting in the education of those parents financially able to afford medical service but who have not been taught that their children should be under the supervision of their physician and that one visit each month during the first year of life is advisable.

The educational program for a health center is designed to instruct the parents in the fundamentals of rearing children. The mothers are taught the value of medical attention and warned against the use of remedies that have not been sanctioned by a physician. The preparation of foods advisable

during infancy and childhood is demonstrated to the mothers. The advantages of a regular schedule are stressed and the necessary vitamins are recommended to prevent the development of deficiency diseases. To reduce the incidence of enteritis, sanitary precautions, particularly in the preparation of foods, receive due emphasis.

In spite of much publicity, parents fail to have their children immunized at the recommended time. School health programs continue to consist of immunization clinics that fail to produce the best results because the mortality from diphtheria is highest in the pre-school group. The immunization of infants against diphtheria at six months of age is routine in these centers and will reduce to a minimum this unnecessary disease. A word of advice from the private physician will yield good results and the number refusing immunizations will diminish.

One of the most important accomplishments is the detection of remediable defects at an age when their correction is possible and gives the best results. The remediable defects of many children are not discovered until such time that growth processes have progressed to such an extent that it interferes with corrective measures. It is the responsibility of the physician conducting the health center to advise the parents and recommend the proper procedure. It is the responsibility of the parents or interested civic groups to arrange for financing corrective measures.

A public health nurse attends each session of the health center and visits the home to instruct the parents regarding any problem that was detected at the center. The nurse demonstrates to the mother the value of observing the recommended procedures and stresses their significance. Those that fail to report to the center are visited at home and urged to return.

It is evident that sick children should not be admitted to the centers. One sick child might precipitate an epidemic, thereby defeating the purpose of the plan. The handling of an ill infant is the responsibility of the family physician and cannot be cared for at the health center. Should a child who is ill appear at the center, the physician would assume no responsibility unless it was voluntary on his part. Many cases return to the physician's office for treatment because the need was pointed out at the center.

The publication of statistics dealing with the morbidity and mortality resulting from various diseases has not in the past been of great interest to the private practitioner. In



the future physicians will appreciate the reduction in the incidence of diseases because they are doing public health work in a more tangible manner than ever before and can justly take credit for the progress made possible through their efforts and cooperation. Many serious public health problems will make an indelible impression that should find expression in the nature of suggestion to the Georgia Department of Public Health. It is hoped that the physicians attending the various types of centers will meet together to discuss the efficacy of procedures and offer their opinions as to how best approach the numerous health problems that challenge physicians daily.

The State Department of Public Health has aided in the establishment of both well baby and prenatal health centers by providing equipment and paying an honorarium for each session that the physician conducts. It is hoped that the establishment of new centers will maintain its current rate of expansion. They cannot function without the local physicians' cooperation and they cannot be established without the consent of the majority of the physicians in a county. The Georgia Department of Public Health will continue to participate financially, both in centers already organized and those established in the future, so long as sufficient funds are available. I should like to thank the many physicians that are cooperating and hope that their communities will appreciate their untiring efforts to reduce the number of maternal and infant deaths.

EDWIN R. WATSON, M.D.  
*Assistant Director,  
 Division of Child Hygiene.*

ABNER W. CALHOUN LECTURESHIP  
 Dr. J. E. Paullin,  
 Chairman, Abner Wellborn Calhoun  
 Lectureship,  
 The Medical Association of Georgia,  
 Atlanta, Ga.  
 Dear Dr. Paullin:

There appeared in the Atlanta Journal of April 23, 1939, the following news item:

"Dr. John S. Lundy of the Mayo Clinic, will deliver the Abner Wellborn Calhoun Lecture, established by Dr. Phinzy Calhoun, of Atlanta, as a memorial to his father."

I am writing to ask that you correct this misstatement and this impression, for the lectureship was established by the voluntary contributions of a host of the members of the Association, and for this great honor my family and I have always been deeply appreciative.

F. P. CALHOUN, M.D.  
 Atlanta, April 25, 1939.

## CHEMOTHERAPY IN PNEUMONIA

Because of the encouraging reports of the use of sulfapyridine in the treatment of pneumonia, the Advisory Committee on Pneumonia Control of the New York State Department of Health met in a special session on February 17, 1939, and, after considering available data concerning the toxicity of this drug and the evidence as to its efficacy in the treatment of pneumonia, adopted the following resolution:

*"Be It Resolved That,*

"The Advisory Committee on Pneumonia Control to the New York State Department of Health, after weighing the available evidence, is of the opinion that sulfapyridine has a beneficial effect in the treatment of some patients ill with pneumococcal pneumonia.

"It is further the opinion of this Committee that the efficacy of antipneumococcus horse and rabbit sera for the treatment of certain types of pneumococcal pneumonia has been established. The evidence does not justify the substitution of sulfapyridine for serum therapy in all patients with pneumococcal pneumonia. Further investigations are necessary before it will be possible to state which patients should be treated with serum and which with sulfapyridine. Laboratory studies, including sputum typing and blood culture, are necessary for rational therapy and for the determination of the efficacy of any form of treatment.

"It is further the opinion of this Committee that sulfapyridine may be administered under competent supervision with reasonable safety in spite of the frequent evidence of toxicity.

"It is further the opinion of this Committee that the hazards incident to the administration of this drug can be lessened by careful clinical observations and by laboratory examinations which give warning of the more dangerous toxic effects which occasionally occur.

"It is therefore the opinion of this Committee that, with the restrictions and precautions above mentioned, sulfapyridine should be released for use by physicians or on physicians' prescriptions."

The introduction of sulfapyridine in the treatment of pneumonia and the limited but encouraging evidence of its efficacy in the treatment of this disease is one of the most interesting developments in medical science in recent years.

Because of the limited experience in the use of this drug and because of the availability of antipneumococcus serum of known efficacy in certain types of pneumococcal pneumonia, choice of the type of therapy in a given case of pneumonia will become difficult. It is not as yet known whether sulfapyridine will be as effective in the treatment of Types I, II, V, VII, VIII and XIV pneumococcal pneumonia as antipneumococcus horse or rabbit serum in these types.

It is evident that the typing of the causative agent is still as important as ever in order that



the proper therapeutic agent may be selected. Additional experience in the use of this drug may very possibly materially change the plan of treatment in the pneumonias. There is at least suggestive evidence that eventually a combination of sulfapyridine and type-specific serum may be the most effective form of treatment. In our present state of knowledge there is quite general agreement that continued typing and the use of serum in those types in which it has been shown to be effective, either alone or in conjunction with sulfapyridine, is indicated, and that the drug gives promise of being an efficient therapeutic agent in the other types.

Absorption of sulfapyridine differs considerably in different patients and the optimum dosage has not been definitely determined. Patients treated with the drug must be carefully observed for the occurrence of toxic reactions, some of which may be severe. Nausea and vomiting frequently follow the administration of sulfapyridine and while not serious, in most cases, may interfere with further administration of the drug. Severe hemolytic anemia, agranulocytosis, and possibly uremia have been observed following the administration of sulfapyridine. It is extremely important, therefore, that the effect of treatment on the red blood cell count and the leukocyte count be frequently observed and that the physician be on the alert for evidence of impaired kidney function.

—Health News, N. Y., State Department of Health, Albany, N. Y., Mch. 20, 1939.

#### NEWS ITEMS

THE SECOND DISTRICT MEDICAL SOCIETY met at Colquitt on April 14. Titles of papers on the scientific program were: *Surgical Treatment of Biliary Lesions*, by Dr. Harry Koster, Brooklyn, N. Y.; *Cardiovascular Syphilis*, Dr. Carter Smith, Atlanta; *Nasal Gavage in Tetanus Neonatorum and Other Serious Diseases of Infants—Report of Cases*, Dr. H. B. Jenkins, Donalsonville; *The Acute Abdomen*, Dr. H. M. McKemie, Albany; a radiologic subject was discussed by Dr. J. J. Collins, Thomasville.

DR. RICHARD BINION, Milledgeville, spoke before a meeting of the Baldwin County Medical Society, March 30, on *The Surgical Management of Head Injuries*.

THE MUSCOGEE COUNTY MEDICAL SOCIETY met in Columbus on March 28. Dr. Isidore Cohn, New Orleans, La., spoke on *The Diagnosis and Treatment of Diseases of the Gallbladder*.

DR. EDGAR H. GREENE, Atlanta, president of the Fulton County Medical Society, spoke over radio station WATL on April 4 to Veterans of Foreign Wars.

THE STAFF MEETING of Grady Hospital, Atlanta, was held on April 11. Dr. Dan Elkin and Dr. Raymond Harris reported a case, *Cholecystectomy for Typhoid Carriers*; Dr. Dan Elkin and Dr. J. A. Greene

reported a case of *Splenectomy for Thrombocytopenic Purpura*.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on April 11. Titles of papers and case reports on the scientific program were: *Arterio-Venous Aneurysm* by Dr. J. K. Quattlebaum; discussion opened by Dr. M. J. Egan and Dr. E. J. Whelan. *Streptococcal Throat Infections with Intestinal Symptoms, Treated with Neo-Prontosil*, Dr. E. N. Gleaton.

THE AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY will meet in Cleveland, Ohio, September 11-15, 1939. Dr. J. R. McCord, Atlanta, is secretary of the Program Committee, and is chairman of the Medical Sub-Committee. Dr. R. A. Bartholomew, Atlanta, is regional chairman for Georgia, North Carolina, South Carolina, Florida, Alabama and Tennessee.

THE EIGHTH DISTRICT MEDICAL SOCIETY met at the Blue Heron Club, Brunswick, April 11. Titles on the scientific program were: *Abdominal Pregnancy—Report of Case*, Dr. Kenneth McCullough, Waycross; *Thyroid*, Dr. Dan A. Gardine, Douglas; *Address* by Dr. Grady N. Coker, Canton, President of the Medical Association of Georgia; *Sciatica—Its Cause and Treatment*, Dr. Exum Walker, Atlanta; *Quinine Blindness in Children*, Dr. Luther Holloway, Jacksonville, Fla.; *Artificial Fever in General Practice*, Dr. W. W. Turner, Nashville; *Acute Appendicitis*, Dr. J. B. Avera, Brunswick.

THE SIXTY-THIRD ANNUAL CONVENTION of the American Association on Mental Defect was held at the Palmer House in Chicago, May 3-6, 1939.

THE SEVENTH DISTRICT MEDICAL SOCIETY met at Rossville, April 5. Titles of scientific papers on the program were: *The Latest Trend in Treatment of Pyelitis* by Dr. Robert F. Norton, Rome; the discussion was led by Dr. R. D. Walters, Calhoun. *Bromide Intoxication*, Dr. Albert G. Odell, Clifton Springs, N. Y.; discussion was led by Dr. W. H. Perkinson, Marietta. *Diagnosis and Treatment of Malignancies*, Dr. J. Elliott Scarborough, Atlanta; discussion was led by Dr. William Harbin, Jr., Rome. *Eosinophilia and Appendicitis—Report of Cases*, Dr. P. O. Chaudron, Cedartown; discussion was led by Dr. N. A. Funderburk, Trion. *The X-Ray Diagnosis of Gallbladder Disease*, Dr. Edward Bosworth, Rome; discussion was led by Dr. M. Van Teem, Marietta.

DR. EVERETT L. BISHOP, Atlanta, has been elected a member of the Council of the International Association of Medical Museums and Technical Methods for a five-year term. He attended the meetings of the American Association of Pathologists and Bacteriologists and the American Association for Cancer Research held recently in Richmond, Virginia.

DR. AND MRS. T. H. BRABSON, Cornelia, entertained members of the Habersham County Medical Society and Auxiliary in their home on March 9.

DR. J. A. REDFEARN, Albany, spoke at the weekly luncheon of the Exchange Club, Albany, March 23. His address dealt with the problem of treatment for tuberculous patients.

DR. V. P. SYDENSTRICKER, Augusta, professor of medicine at the University of Georgia School of Medicine, Augusta, was a guest speaker on the program of the Medical Association of the State of Alabama at its annual meeting held in Montgomery, April 18-20.

THE STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held April 13. Physicians invited to discuss reports of cases were: Dr. L. H. Kelley, Dr. George A. Williams, Dr. C. A. Lee, Dr. Frank K. Boland, Dr. C. W. Roberts and Dr. Shelley C. Davis.

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall, April 18. Dr. Thomas L. Ross read a paper on *Pyelitis and Hypertension*.

DR. FRANK K. BOLAND, Atlanta, has been elected president of the Atlanta Unit of the International Association of Torch Clubs. "The Torch Club is an organization of professional men, created to 'promote free interchange of opinion among its members on subjects civic, religious, philosophic, scientific, economic and artistic.'"—Atlanta Journal, April 22, 1939.

IF INTERESTED in locating in a country town in the tobacco section, write the Secretary-Treasurer.

THE MEDICAL STAFF of Emory University Hospital met on May 1. Titles of cases reported and discussed were: *Torsion of Stomach*, Dr. Gaston Gay; discussed by Dr. I. A. Ferguson and Dr. H. L. Reynolds. *Splenectomy*, Dr. Daniel C. Elkin; discussed by Dr. E. Van Buren and Dr. R. R. Kracke.

THE MACON MEDICAL SOCIETY of Bibb County met in Ridley Hall, Macon, May 2. Dr. Wm. C. Cook, Columbus, read a paper entitled *Some Phases of Tuberculosis in Children*.

MEMBERS OF THE 1899 CLASS of the Atlanta College of Physicians and Surgeons held a class reunion at the Piedmont Hotel, Atlanta, April 26. Those present were: Dr. J. C. Dover, Clayton, president of the Alumni Association; Dr. Theodore Toepel, Atlanta, secretary; Dr. W. B. Emery, Dr. L. C. Fischer, both of Atlanta; Dr. J. S. Alsobrook, Rossville; Dr. J. R. Boring, Canton; Dr. J. B. Dalton, Graysville; Dr. Wm. H. Perkinson, Marietta; Dr. S. M. Samuels, Seattle, Washington; Dr. T. K. Slaughter, Wildwood, Florida.

THE TRI-COUNTY MEDICAL SOCIETY, composed of the counties of Calhoun, Early and Miller, met at Arlington on April 6. Dr. S. P. Holland, Blakely, read a paper on *Treatment of Fractures of the Extremities*; Dr. J. G. Standifer, Blakely, *The Treatment of Colitis in Infancy*; Dr. T. K. McFatter, Dothan, Ala., was guest speaker.

THE WARE COUNTY MEDICAL SOCIETY met at the home of Dr. T. J. Ferrell, Waycross. Dr. Ferrell and Dr. D. M. Bradley, Waycross, were hosts at a chicken supper.

EMORY UNIVERSITY SCHOOL OF MEDICINE announces the opening of a Department of Medical Illustration in conjunction with the Robert Winship Clinic at Emory University Hospital. This service is avail-

able to the medical profession under the direction of Miss Kathleen MacLay, formerly with the Mayo Clinic.

DR. J. L. GARRARD, Rome, was recently elected president of the Georgia Urological Society.



LYMAN SANDERSON OSBORN, M.D.  
Fitzgerald

Dr. Lyman Sanderson Osborne was born in Jonesville, Wisconsin, January 11, 1855. He moved with his family to western New York in 1858 where he was educated in the county schools and State Normal School. In 1875 he began study at the University of Michigan Medical School, Ann Arbor, and graduated in March, 1878.

He located in Iowa for a few months, then practiced in the Dakotas and Missouri, then moved to Fitzgerald, his present home, in 1897.

Dr. Osborne has licenses to practice in Iowa, Missouri and Georgia. He has done general practice but never limited his practice to any branch of medicine or surgery, yet he has done more work in obstetrics and gynecology than in other lines and has done a lot of general surgery. He did the first appendectomy in Fitzgerald more than 40 years ago. The operation was the last resort and was done on a kitchen table in a country home. The patient was a young man, the appendix had sloughed and the abscess walled off. The patient made a rapid recovery.

Dr. Osborne served as Fitzgerald and Ben Hill county health officer for 20 years, and until he was seriously injured in an automobile accident in 1933 which disabled him.



He has been secretary-treasurer of the Ben Hill County Medical Society since its organization and the records of the Medical Association of Georgia show that he has been most efficient and loyal.

He has served as president and at other times as clerk of the Fitzgerald Board of Education.

#### OBITUARY

*Dr. Edward Homer Egbert*, St. Simons Island; member; Baltimore Medical College, Baltimore, Md., 1905; aged 58; died at his home on February 27, 1939. He was a native of South Bend, Indiana. He moved with his parents to Chicago when an infant and spent his early boyhood days there. After his father died when he was only nine years of age, his mother moved him and his brother to Cleveland, O., and entered business to rear and educate her two sons and was successful in her undertaking. After Dr. Egbert graduated from high school in Cleveland, he began his pre-medical studies at Dartmouth College. After he graduated in medicine, he served as an intern at Lakeside Hospital, Cleveland, under Dr. Crile. Dr. Egbert began practice in Washington, D. C. After being engaged in active practice and study of surgery until 1914, he became sick and with a classmate took a rugged trip into Canada but that did not relieve his condition. Since his health was not improved by the Canadian trip, and upon advice of physicians he moved to Flint, Mich., and began practice. Immediately after he began practice in Flint, Mich., the World War began, he with five other doctors and Red Cross nurses sailed for England. When Dr. Egbert reached England he was assigned to duty in the medical corps of the Russian Army and went to St. Petersburg via Scotland and Finland. By November, 1914, Dr. Egbert with his coworkers were established in their quarters in Kiev and prepared for active work. During his service in the medical corps of the Russian Army, he worked faithfully and long hours on the horde of wounded soldiers being rushed in from the front lines. Dr. Egbert was stationed at a number of places as chief surgeon of the respective hospitals where located. At one time during the war, the Russian government sent him to the United States to purchase hospital and surgical supplies. Later during the war Dr. Egbert had an infected hand and he was forced to abandon his work as surgeon. After the World War, he practiced in Maryland, then New Jersey and New Hampshire; then moved to St. Simons Island. Surviving him are his widow and three children, Margaret, Beth and Ned. Burial was in Frederica cemetery, St. Simons Island.

*Dr. William Stanley Hill*, Pelham; Emory University School of Medicine, Emory University, 1892; aged 73; died at his home on March 7, 1939 after a long illness. He was a native of Worth County. He moved to Pelham many years ago and was one of the outstanding physicians of Mitchell County until he retired on account of ill health. Dr. Hill was recognized as a leader in the affairs of his community. He was a member of the First Baptist Church of Pelham. Sur-

viving him are his widow, one daughter, Mrs. Will Garner, Ozark, Alabama; one son, Stanley Hill, Benettsville, S. C. Rev. E. R. Eller, assisted by Dr. J. A. Thomas and Rev. M. G. Bradwell, officiated at the funeral services conducted from the home. Burial was in the Pelham cemetery. Members of the Mitchell County Medical Society were honorary pallbearers.

*Dr. Irby Hammond Adams*, Macon; member; University of Georgia School of Medicine, Augusta, 1902; aged 58; died at his home after a long illness on April 5, 1939. He was a native of Putnam county. He served an internship at the Macon Hospital, Macon, and immediately thereafter began the private practice of medicine. Dr. Adams was an affable and kind gentleman. He was a member of the Macon Medical Society of Bibb County, Sixth District Medical Society, an elder and member of the Vineville Presbyterian church. Surviving him are his widow, two sons, John I. Adams, a teacher at Long Island, N. Y.; and Robert B. Adams, a student at Middle Georgia College at Cochran. Rev. George M. Wilcox officiated at the funeral services conducted from the Vineville Presbyterian church. Interment was in the Macon mausoleum.

*Dr. Benjamin V. Wilson*, Decatur; member; University of Georgia School of Medicine, Augusta, 1900; aged 62; died suddenly at his home on March 19, 1939. He was a native of Gwinnett county. Dr. Wilson was engaged in private practice for a number of years at Dacula. For the last fifteen years he practiced in Decatur and surrounding community, and served as DeKalb county physician for the last eight years. He was a friendly and kind hearted gentleman, an excellent physician and good citizen. Dr. Wilson was a member of the DeKalb County Medical Society, Masonic lodge, and the Baptist church. Surviving him are his widow, one daughter, Miss Julia Wilson; three brothers, A. M., J. M. and J. J. Wilson, all of Dacula; two sisters, Mrs. T. J. Sammons and Mrs. J. G. Hood, both of Dacula. Rev. A. J. Moncrief and Rev. J. W. O. McKibben officiated at the funeral services conducted from the residence. Burial was in the Decatur cemetery.

*Dr. Gustave A. Lawrence*, Milledgeville; University of Georgia School of Medicine, Augusta, 1892; aged 75; died at his home after a short illness on April 7, 1939. He was widely and favorably known throughout Baldwin county and had resided in Milledgeville for many years. Dr. Lawrence retired from active practice a number of years ago. He was held in high esteem by many acquaintances. Surviving him are his widow, three daughters, Mrs. H. H. Herndon and Mrs. Lucetta Lawrence, both of Milledgeville, and Miss Roberta Lawrence, Columbus; and one son, Gustave Lawrence, Milledgeville. Rev. A. M. Pierce officiated at the funeral services conducted from the residence. Burial was in the Milledgeville cemetery.

*Dr. John Franklin Ward*, Fitzgerald; member; Atlanta College of Physicians and Surgeons, Atlanta, 1907; aged 52; died on April 8, 1939, after a long



illness. He was a native of Baxley. Dr. Ward received his literary education in Jacksonville, Florida. After he graduated in medicine and took postgraduate work in New York, he practiced in Jacksonville until the United States entered the World War. During the time this country was engaged in war, Dr. Ward served as captain in the medical corps. After he was discharged from the army, he removed to Fitzgerald and promptly built an extensive practice. He worked hard and made friends easily. On account of failing health he was forced to retire from active practice about eight years ago. Dr. Ward was a member of the Woodmen of the World, American Legion, Ben Hill County Medical Society and the Central Methodist church. Surviving him are his widow, two sons, Dr. Francis Ward, Macon, and Paul Ward, Dublin. Rev. B. A. Pafford officiated at the funeral services conducted from the funeral parlor of the Home Furnishing and Undertaking Company. Burial was in Evergreen cemetery.

Dr. William C. Warren, Atlanta; member; Emory University School of Medicine, Emory University, 1890; aged 69; died at a private hospital on April 23, 1939. He was a native of Griffin. After he had practiced almost forty years, he retired on account of ill health. Dr. Warren took postgraduate study and for many years limited his practice to diseases of the eye, ear, nose and throat. He took a great interest in hunting and fishing, also in public affairs. Dr. Warren had many warm personal friends and was one of the State's best citizens. He was a member of the Fulton County Medical Society, Knights Templars and Shrine. Surviving him are his widow, two sons, Dr. Wm. C. Warren, Jr., and Dr. Green D. Warren. Rev. Nat G. Long officiated at the funeral services conducted from Spring Hill Chapel. Burial was in West View cemetery. An honorary escort was formed by members of the Fulton County Medical Society.

Dr. Junius V. Talley, Nashville; member; Kentucky School of Medicine, Louisville, Ky., 1894; aged 67; died on April 19, 1939 in a Waycross hospital. He was a native of Lakeland. Dr. Talley served one term as county commissioner of Berrien county, eight years as mayor of Nashville, past president of the Berrien County Civic Club, member of the Masonic lodge, Shrine, and the Nashville Methodist church. He was an energetic leader in civic affairs. Surviving him are his widow, one son, J. B. Talley, Jr., Nashville; one daughter, Mrs. Perry Baggs, Pelham. Rev. J. O. Stana-land conducted the funeral services from the Nashville Methodist church.

Dr. Robert Lee Tye, McDonough; member; Bellevue Hospital Medical College, New York City, 1885; aged 74; drowned on January 8, 1939, when his car turned over on him in a creek at Daily's mill. He had made a professional call and was returning home when the accident occurred. Dr. Tye had practiced for more than fifty years. He was a member of a prominent Georgia family and the Henry County Medical Society. Surviving him are five sisters: Miss Nina Tye, Mrs. T. A. Sloan and Mrs. Paul Turner, all of Mc-

Donough; Mrs. Leila Tye Henderson, Atlanta, and Mrs. N. L. Hutchens, Lawrenceville. Funeral services were conducted in McDonough.

Dr. Charles L. Baskin, Bremen; member; Emory University School of Medicine, Emory University, 1895; aged 69; died at his home on January 13, 1939. He was a native of Carroll county. Immediately after he graduated in medicine, he began practice at Temple and continued there until 1933, then moved to Bremen. Dr. Baskin served as chairman of the Temple board of education for a number of years. He was a member of the Carroll County Medical Society and the Bremen Baptist church. Surviving him are his widow, one daughter, Mrs. Floyd Fulmer, Mount Vernon, Ga.; two sons, C. T. Baskin, Houston, Texas, and T. E. Baskin, Marietta. Rev. M. V. Stedham officiated at the funeral services held at the Bremen Baptist church. Burial was in Asbury cemetery. Members of the Carroll County Medical Society and the deacons of the Bremen Baptist church formed an honorary escort.

#### WALKER-DADE-CATOOSA COUNTIES MEETING

The regular monthly meeting of the Walker-Catoosa-Dade County Medical Society met Monday night, Feb. 6, at the Health Office in LaFayette. The following members were present: Drs. B. C. Hale, Rossville; Dr. D. W. Hammond, Dr. J. H. Hammond, Dr. S. B. Kitchens, Dr. R. C. Shepard, all of LaFayette; Dr. Fred H. Simonton, Chickamauga, and Dr. Chas. W. Stephenson, Ringgold.

The newly elected president, Dr. Kitchens, called the meeting to order. The meeting was devoted to the clearing of old and new business and outlining a program for the year.

Old business: Dr. Kitchens called for a general discussion on the Farm Security Administration proposal that was voted favorably on by the society during the January meeting; after a lengthy discussion this business was disposed of as follows:

1. That 20 per cent of the total amount be used for emergencies and 80 per cent be used to pay the doctor's bills.

2. In cases where appendectomy, or other major operation procedure, is contemplated the physician in charge will be required to have a consultation with another physician on the list. The fee the consulting physician shall receive is to be for the call only. The anesthetic fee and the hospital expense is to be charged against the emergency fund.

3. The physicians whose names appear below agree to render medical care to all cases of acute illnesses and emergencies. Tonsillectomy is not to be considered an emergency. Inflamed tonsils are to be treated medically. The physicians are to report their fees due from Farm Security Administration at the regular monthly meeting of the Society and the Secretary shall render it to the Farm Security Administration the next day.

Next in order was a discussion on Post-Graduate Medical Education. The recent communications had by the secretary were read and tabled for present.

New business: Dr. B. C. Hale suggested that we make definite plans pertaining to the Seventh District Medical Association which is to meet in Rossville. The Secretary was instructed to write to Dr. Zeb Johnston, president of the Association, and find out the exact date of the meeting and inform Dr. Hale, who is arranging for the entertainment. Dr. Charles Stephenson was asked to prepare a paper to be read at the District meeting.

Dr. Kitchens requested the secretary to find out from the American Medical Association the medical films available and to arrange to have a selection for the March meeting.

The society adjourned after it accepted an invitation from Dr. Fred Simonton to hold its next meeting in Chickamauga.

RICHARD C. SHEPARD, M.D.,  
Secretary-Treasurer.

#### EXHIBIT SPONSORED BY SQUIBB AT NEW YORK WORLD'S FAIR SHOWS HOW DRUG PRODUCTS ARE SAFEGUARDED

"Safeguarding Medicinal Products by Research and Control" is the subject of a vitally interesting exhibit at the New York World's Fair sponsored by E. R. Squibb & Sons. This exhibit, together with those of the American Medical Association, the Rockefeller Foundation, the American Public Health Association and similar organizations, as well as those of some other pharmaceutical houses, is located in the Medicine and Public Health Building on Constitution Mall near the Theme Center.

The average layman, who takes a prescription to his local drug store, is totally unaware of the great care taken by many agencies to assure that the drugs used in that preparation are pure and potent—capable of producing the result which his physician intended. In the Squibb exhibit, the World's Fair visitor learns of the safeguards established by the government, pharmacists and reputable pharmaceutical manufacturers to the end that the patient may receive the greatest benefit from the physician's training and skill.

He sees examples of the U. S. Pharmacopoeia, the National Formulary and the various legal enactments whose ultimate purpose is the safeguarding of public health through the practical standardization of medicinal products. Beside these are specimens of the assay reference standards of many of the more important preparations used in medical practice. On adjoining panels is indicated something of that infinite variety of laboratory control tests which the conscientious manufacturer makes in order that the finished products will merit in all respects the full confidence of the physician.

Safeguarding drug products, however, is only half of the story. The Squibb exhibit also gives, by means of a few selected examples, an idea of what research is contributing toward the medicine of tomorrow.

Because of their immediate and popular interest, some of the results of recent investigations on vitamins are featured. Described in detail is one of the newer vitamins, vitamin K—the factor needed in certain con-

ditions when the clotting power of the blood is delayed. Adjoining the vitamin K exhibit is a remarkable array of most of the known vitamins in crystalline form—a symbol of the achievement of the many investigators who have devoted their research mainly to the science of nutrition. Finally, tribute is given to the part played by the animal world in hastening and extending man's conquest of disease.

The entire exhibit encompasses much that is behind the scenes insofar as this tremendous activity is known to the layman. It will be a great revelation and should contribute to a feeling of added security for the visitor to see and learn something of the great effort being made by thousands of scientific workers in his interest and for the protection of his health.

#### MORE IMPORTANT NOW THAN EVER BEFORE

When Dextri-Maltose was marketed in 1911 "without dosage directions on the package," Mead Johnson and Company pioneered the principle that infant feeding was a therapeutic problem. Up to that time far more babies were fed by grandmothers, neighbors, grocers, and commercial houses than by physicians. This Mead policy was not readily accepted in the beginning, and it took many years of unceasing effort before the weight of the majority medical opinion finally led to mandatory action on the part of the Committee on Foods in 1932, whereby all makers of baby foods are now *obliged* to omit dosage directions. The Mead policy, however, does not stop here. It embraces other principles with which all physicians interested in the private practice of medicine are in agreement, such as (2) No descriptive circulars in packages, or in shipping cartons (for druggists to hand to patients); (3) We supply no display of Mead products for druggists' windows and counters; (4) We do not advertise Mead products to patients; (5) We give no handbills and send no letters concerning Mead products to patients; (6) We do not broadcast to the public; (7) We refer patients to physicians at every opportunity; (8) We devote a great deal of effort and resources to research and to activities that assist the private practice of medicine. Is the Mead policy worthwhile?

In days past, fabulous sums were paid for the bezoar stone, which superstition credited with having powerful curative and protective properties. Ambroise Pare convincingly disproved its value, but many persons, including Charles IX of France, continued to believe in the object's mythical influence. Humans today might conceivably be employing the stone were it not for modern science, which has developed many specifics for the prevention of disease.

One such product is Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated, Lilly, indicated for simultaneous active immunization against diphtheria and tetanus. Clinical studies demonstrate that each toxoid acts independently to produce its homologous antitoxin. Immunity is established within three to six months after immunization.





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# SURGICAL SELLING COMPANY

Adhering to a long established policy of service and convenience to the physician, patient, and hospital, the Surgical Selling Co., 139 Forrest Ave., N. E., Atlanta, has just assembled the most comprehensive and complete show room of surgical equipment in the south-east.

It occupies the entire west side, on the ground floor, of the Professional Building, a space formerly the offices of Drs. Manget, Sanders, Richardson and Nellans. With over twenty-seven hundred square feet of floor space there is ample room to display many kinds and sizes of office and hospital equipment. The room is attractively decorated in natural walnut, paneled to the ceiling. Heavy chrome fixtures give bright daylight at all times. Show cases along one side of the room contain a full showing of surgical and diagnostic instruments. At the rear, an ingenious arrangement of ceiling high shelves and drawers house the southeast's largest stock of small supplies used in doctor's offices and hospitals.

Responsible for the reception and welcome of physicians and their patients are men of long experience, trained in their business. They know their lines and can render expert advice and suggestions.

It will be well worth anyone's time to see this display. Innovations for hospitals or doctors are prominently shown and explained. Hospital managers and practicing physicians can discuss their needs and examine their contemplated purchases of any item from tongue blades up to the finest Diathermy, Electrocardiographs, etc.

To those interested in the equipping and operating cares of hospitals and institutional surgeries, to specialists and practitioners the Surgical Selling Company extends an invitation to visit their display room at any time. Whether they wish to buy or whether they wish to look, the same welcome and courteous service will be found. Such a show room as this will prove to be a valuable additional facility to the medical profession in the Southeast, and one of which it may well be proud.

# ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Association for the Study of Goiter again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Cincinnati, Ohio, on May 22nd, 23rd and 24th, 1939, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy sent to the Corresponding Secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania, not later than April 15th, 1939. The Committee, who will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend.

# THE UNSPECIFIED PRESCRIPTION

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"I invariably specify Mead's whenever I can, for I feel that when I do not specify a definite brand, the effect may be the same as specifying that any brand will do.

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## SUGGESTIONS FOR THE USE OF ANESTHETICS AND ANALGESICS IN GENERAL MEDICAL PRACTICE\*†

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*Rochester, Minnesota*

I wish to thank the Calhoun Lectureship Committee in behalf of the specialists in anesthesiology for inviting one of its members to give this lecture and I am personally grateful for being the anesthetist selected.

The first thought that comes to my mind is the fact that it was in 1842, in the State of Georgia, that the clinical application of ether as a surgical anesthetic was made by Dr. Crawford W. Long. It was only because of certain circumstances which were beyond his control and which made it impossible for him to develop his ideas and bring attention to the use of ether as an anesthetic in controlling pain during surgical and medical procedures that his work was not recognized earlier. In the period of almost 100 years since Dr. Long first used ether, a great deal of progress has been made in the use of anesthetics. Recent evidence of this is the establishment of an American Board of Anesthesiology as an affiliate of the American Board of Surgery for the purpose of qualifying physicians as specialists in anesthesiology. The significance of the word "anesthesiology" may not be evident but it was used because there was a need for a word which signifies a specialist who is interested not only in anesthetics but in the use of other agents and methods that must be familiar to the one who administers the anesthetic if he is to make himself as useful as possible in the hospital

who can devote their full time to this work which includes clinical and laboratory investigations as well as the actual clinical application of the various methods and agents at one's disposal today. It seems to me to be the newest specialty in medicine and I believe that it has a real future. A rapid development has been experienced in anesthesia in the last quarter of a century which certainly has outstripped that of any other twenty-five-year period. I believe that the next twenty-five years will bring a further and more astonishing development of anesthesia as a specialty.

It is desirable to have a medical anesthetist in each hospital and medical school. The lack of physicians in this field is acute. The demand for those who are well trained cannot be met for many years. Perhaps the best we can expect is that a reasonably competent physician anesthetist will be in charge or will supervise the work in as many hospitals and medical schools as can be supplied from time to time. Heretofore it has not been sufficient to call the attention of the medical profession to the many opportunities in this field. Actually, it has been necessary to convert men to the idea. As in many other fields, there are certain sharp persons who see the coming development of the specialty. It is to be hoped that certain of them will not crowd from the field those more substantial individuals who can be depended upon to build the specialty into a strong body of which the medical profession may be proud and in which physicians may place their confidence.

My interest in anesthesia began in 1905 owing to a personal experience with ether in which the air supply was restricted by a wash cloth that was used instead of a mask. I broke away from five attendants and got into the open window of the office operating room on the second floor. On the assurance that I could have more air, I returned to the oper-

\*Abner Wellborn Calhoun Lecture delivered before the Medical Association of Georgia, Atlanta, April 26, 1939.

†From Section on Anesthesia, The Mayo Clinic.  
or to the community which he serves. The specialty is greatly in need of more individuals

ating table and was anesthetized without further difficulty. Since that time I have been preaching the use of adequate air or oxygen in connection with the administration of anesthetics and with each succeeding year I have become more impressed with the desirability of following that dictum. In the intervening years and especially in the last twenty years, I have had an opportunity to take part in the introduction of certain anesthetic agents, usually within the first year of their clinical use. I intend to draw upon this experience in calling to your attention certain agents and methods which I believe could and should be used by the general practitioner whose practice necessarily has also undergone a marked change in the last quarter of a century. He finds himself in competition with all the specialists and has found it necessary to inform himself of the many advances in the field in which he is engaged. This is especially true in general surgery and obstetrics.

It would be tedious and tiresome if I should attempt to illustrate in detail the technic of my choice in the application of agents that I will suggest for use. Therefore, I shall describe briefly some of the technical steps involved in the application of certain agents and methods. For those particularly interested, there are available many opportunities to learn further technical details. It has become evident to the anesthetists in teaching centers that the medical visitors are as anxious to inform themselves about the various anesthetic agents, methods and technic as they are to obtain information about other subjects. The literature contains so many articles on the use of anesthetic agents that one really has little excuse for not becoming familiar with anesthetics which would be useful to him in his daily practice.

For brevity I wish to discuss the use of anesthetics on a basis of various methods rather than dwell on specific agents. The question of preliminary medication is also best discussed in connection with the methods.

It is my impression that methods of local anesthesia would be most useful in general practice. The surgeon may administer the anesthetic himself in most instances and then proceed with the operation; if necessary, he may supplement the initial anesthesia by fur-

ther injection as the operation continues. The essential procedures in the infiltration of tissues to be incised are: (1) that the local anesthetic be deposited intradermally as well as in the subcutaneous tissues, (2) that the concentration of the drug for the average patient be 0.5 per cent of procaine or its equivalent, (3) that the anesthetic usually should be combined with a vasoconstrictor in very dilute concentration, (4) that sufficient time should elapse between infiltration of the tissue and the making of the incision (usually from five to ten minutes) (5) that the needle used should be sharp and of as small caliber as is consistent with its length, which usually averages 8 cm. (approximately 3 inches), and (6) that the needle should be passed through the tissue a minimal number of times in order to minimize trauma. These same points are applied in regional methods of anesthesia. For example, field block is essentially a method by which one infiltrates the tissues in such a pattern as to surround but not to touch the lesion or site to be incised.

Of the various field blocks, those that can be used in general practice without much effort are abdominal wall block and field block of the extremities such as field block of the digits of the hand or foot. There are other blocks which are very useful if their technic has been mastered, but this usually requires more time and practice than is available; for example, brachial plexus block, ulnar nerve block, intercostal block, field block of the breast, block for circumcision, scalp block and sacral block. In obstetric delivery injection of 15 cc. of 1 per cent solution of procaine on the perineal nerves near the ischial tuberosities will produce good anesthesia of the anterior half of the perineum. Relaxation will be greater than that observed when the perineal nerves have not been blocked. This is true whether a method of general anesthesia is also used or not.

The use of spinal anesthesia must be considered and one of the greatest arguments in favor of its use is that advanced by medical missionaries and others who are often operating without enough assistants to utilize general anesthesia. Under such circumstances spinal anesthesia has often been of outstanding value. On the other hand, I have been



told that the use of unsupervised spinal anesthesia requires that the technic of its application be changed from that which is generally employed, namely, that the ordinary dose of the anesthetic agent must be reduced somewhat to make it safer than usual. The site of injection is often lower than the one commonly subjected; the rate of injection into the spinal fluid is slower than that generally used and the concentration of solution which is injected is less than usual. As a result, anesthesia is less profound and less prolonged; therefore, indications for use of the method are somewhat changed.

In conjunction with the use of infiltration, regional or spinal anesthesia, it will be found that preliminary medication may be used to advantage if the dose of the drug employed is not so large that the patient will be unable to co-operate with the surgeon. Under such circumstances, that is, with the use of local anesthetic and moderate preliminary medication, it will be possible to reinforce and to supplement the anesthesia with a very light anesthesia produced by administration of ether by the open drop method. There are many other anesthetic agents that are employed in institutions, but as yet, for the purposes under discussion, in general practice and in cases in which operations are to be performed outside the hospital, I still favor the use of light anesthesia produced by the administration of ether by the open drop method. This refers particularly to operations done in the home rather than those carried out in the doctor's office. General anesthesia for office use should, I think, be limited to very short minor operations, most of which can be carried out under local anesthesia. However, when the doctor feels he must use a general anesthetic, it will be necessary for him to decide between nitrous oxide and oxygen or an intravenous anesthetic.

Infiltration anesthesia is, on the whole, one of the most useful methods for the general practitioner. However, there are conditions under which its use is not advisable, for example, one should avoid infiltration of badly infected tissues or those that are invaded by malignant lesions. In cases in which one wishes to remove a tiny tumor for a biopsy, infiltration anesthesia is not always satis-

factory, as the infiltration itself may conceal the small lump and it may distort the pathologic appearance of the tissue. In cases in which infiltration is to be avoided, the field block or regional methods of anesthesia are definitely indicated.

A quick-acting ether, vinethene, has been used with considerable satisfaction in short operations by those who are familiar with it. I am not ready to recommend its use to you. Perhaps at a later date, you may wish to use it, but at the moment I think you would be better off to use nitrous oxide or an intravenous anesthetic. I also cannot recommend inflammable, explosive gases under conditions that exist today. Static electricity is not sufficiently under control under certain circumstances to make safe the use of inflammable gases.

If intravenous anesthesia is to be used, the patient should have an empty stomach, rectum and bladder and someone must be available to accompany the patient to his home after he awakens. The use of nitrous oxide and oxygen requires rather elaborate equipment, for example, a gas machine, and also requires someone who knows how to operate it. The relative safety of its use depends on the availability of equipment and on personnel to see that it is properly used. Since these will not always be available in some communities, it may be advisable to consider the use of intravenous anesthesia. The method is theoretically more simple than the use of an anesthetic gas by inhalation. However, the use of this method requires that the surgeon understand its application and the limits of its usefulness. It should be used only for short minor operations when the patient is an adult and is in good, or rather good physical condition. The injection should be made slowly and a 2.5 per cent solution of pentothal sodium (sodium ethyl 1-methyl butyl thiobarbituric acid) or evipal (sodium n-methyl cyclohexenyl methyl malonyl urea). The effect on the patient's respiration must be kept under observation, that is, breathing should be satisfactory and should not stop. For this purpose, wherever possible, a bit of paper or cotton should be suspended before the nostrils or mouth in order that the inhalation or expiration of air may be observed.

In institutional practice, oxygen is often administered simultaneously to advantage but since this phase of the technic is not yet suitable for use in homes, one must depend upon oxygen of the air to keep the patient's color satisfactory. It is desirable that injection of the anesthetic agent should be carried out by a physician.

Rectal anesthesia may be carried out by the use of a mixture of 65 per cent of olive oil and 35 per cent of ether. Not more than 1 ounce (30 cc.) of the mixture for each 20 pounds of the patient's body weight should be administered. The total amount of the mixture should not exceed 10 ounces (300 cc.) for any individual regardless of weight. This results in a light anesthesia, the duration of which depends somewhat on whether or not preliminary medication has been administered in an amount sufficient to depress respirations enough so that the ether will not be exhaled rapidly. This light state of anesthesia may be controlled by the administration of a small quantity of ether by inhalation. The more accepted method of rectal anesthesia is the administration of tribromethyl alcohol, or avertin, by rectum. This is accomplished by dissolving the avertin in amylene hydrate. Avertin is available on the market in this form. The avertin in amylene hydrate is dissolved in water that has been heated to a temperature of 40° C.; it will dissolve if it is shaken in the flask. The drug is then administered through a rectal tube and here again the anesthesia is more effective if the patient has had preliminary medication and is drowsy. The dose of avertin is usually 80 to 100 mg. per kilogram of body weight. If the patient is a child, it may be necessary to use a slightly larger dose per kilogram than is used for an adult. Respiratory depression is noticeable in those cases in which patients are markedly affected by the drug. Not infrequently it is advisable to insert an intratracheal tube. The use of this tube is very advantageous under almost any circumstances in which the patient has difficulty with breathing, as during the administration of the inhalation anesthetics or wherever there is any obstruction to respiration.

Eighty milligrams per kilogram of body weight is the dose of avertin that is most

useful in general practice. It is more useful for major surgical operations than for obstetric procedures. In surgical cases it is necessary to supplement the avertin with local anesthetic or a little ether administered by the drop method. The amount of ether or of the local anesthetic that is necessary is very small. An assistant is needed only to support the chin; therefore he need not be especially skilled, although it is better if the assistant can count the pulse as well. In obstetrics this method is not very satisfactory because the patient usually becomes restless and uncooperative, sterile drapes are disarranged and the delivery may actually become complicated for this reason. The rectum, however, is a useful route for the introduction of barbiturates under certain circumstances in which the intravenous method is not convenient and the patient will not or cannot take drugs by mouth. If capsules are used as suppositories, the ends of the capsules should be perforated with a pin to increase the rate of absorption of the drug. While this method finds its greatest usefulness in cases in which the patients are small children, the continued administration of barbiturates to an unconscious patient is best carried out by insertion of a small stomach tube through the nose so that the barbiturate may be dissolved in water and forced into the stomach with a syringe. The advantage of this method to the general practitioner is that he may direct a relative or a nurse in the administration of barbiturates in this fashion while he himself need not be present. He thus may issue his instructions by written order. The transportation of uncooperative patients may be carried out by inserting a rather large safe dose in the patient's rectum. Then he may be placed on his side in the back seat of an automobile. Convulsions may be controlled in this manner, regardless of whether they are due to poison or eclampsia.

In the control of tetanus it is often necessary to alternate doses of several agents in order to minimize pulmonary edema. For example, if the patient is an adult, the first dose may consist of 15 grains (1 Gm.) of sodium amytal (isoamylethylbarbituric acid) administered intravenously. At the first sign of restlessness  $\frac{1}{4}$  grain (0.016 Gm.) of mor-

phine should be administered by hypodermic injection. At the next appearance of convulsions a dose of avertin should be administered. At the next time it is necessary to control the patient, 2 cc. of a 25 per cent solution of magnesium sulfate should be administered intramuscularly. In the next period of restlessness one should administer sodium amytal by mouth or by rectum and in turn should administer the other agents rather than frequent large doses of one of them.

In addition to the successful use of several methods of anesthesia the physician who has been trained in anesthesia finds it necessary to be able to carry out a number of procedures which will support the patient during the period of anesthesia and operation or when traumatic shock is present. In this connection the following measures may be mentioned: (1) artificial respiration and resuscitation, which frequently are necessary in obstetric practice, (2) supportive treatment and the treatment of shock, which include transfusion of blood and the intravenous administration of stimulants, (3) assistance in certain diagnostic and prognostic procedures, (4) the administration of oxygen and certain other gases, and (5) the postanesthetic aspiration of material from the bronchi and respiratory passages, which makes it necessary for the anesthetist to be more or less familiar with the use of the laryngoscope and bronchoscope.

Consultants may find that the anesthetist is able to give them valuable assistance in the care of patients who require unusually large doses of sedative drugs or who must be supported because of an overdose of a drug.

In the postoperative period there are times when the patient may have a great deal of pain and it may be desirable to bring about quick relief. I have found that the intravenous administration of morphine can be depended upon to produce this result. I must emphasize that the injection must be made very slowly and as soon as the patient notices any relief or has any other signs that definitely indicate that he is getting the physiologic effect, the injection should be stopped and if more drug is to be given the additional amount should be injected intravenously ten or fifteen minutes later. This

method of relief of pain is advantageously used in general practice when intense pain is to be controlled, as in cases of renal colic, stone in the ureter, or severe injury or a severe burn.

In the treatment of delirium tremens I have found the intravenous administration of sodium amytal to be valuable but in cases in which the patients are dehydrated and debilitated it is best to administer a dose of ephedrine with the barbiturate, that is, about 25 mg. of ephedrine to each gram of the barbiturate. In cases in which fluids are to be administered intravenously it will be necessary to perform venipuncture, if venisection is to be avoided. Venipuncture is not difficult in most instances. If a patient's veins are not readily available, they may be made accessible by the proper application of heat to an extremity. One should raise the temperature of hand, wrist and forearm if the injection is to be made in the upper extremity or the temperature of the foot, ankle or leg if the injection is to be made in the lower extremity. After twenty minutes, the heat may be removed and the tourniquet applied immediately above the site of venipuncture. The patient closes his hand, this forces blood into the veins and expands them. The tourniquet should anchor the vein on one side of the site of venipuncture while the doctor stretches the vein to make it stay in place. The pain may be relieved by an intradermal injection of procaine; the injection should reach the wall of the vein. If the vein is relatively small and if the needle is relatively large, the bevel of the needle should be held downward, that is, against the skin, when it is inserted; otherwise, the position of the bevel of the needle is not important.

In injecting solutions into a vein there are times when rapid introduction of a large quantity is necessary. Under such circumstances the best method is to use a large gauge needle. I believe a 15 gauge needle is the right size for use in case of an emergency. If the container is elevated, one may introduce as much as 100 cc. of fluid, even thick fluid such as blood, per minute. On the other hand the flow usually should be made as slowly as 15 cc. per minute by regulating it with a stopcock. When a small needle, such as a 20 gauge



needle, is used, the container should be well elevated. This will tend to prevent coagulation of the blood in the needle and will keep the solution flowing in steadily. If an 18 gauge needle is used, I think it is advantageous to elevate the container so that there will be plenty of power behind the flow. It occasionally will be necessary to force a quantity of solution through a small needle and in some cases the elevation of the container will not be sufficient. In such cases force must be applied through the tubing or through the air above the solution in the container. When blood transfusion is necessary I believe the citrate method is the most convenient. In general practice the physician may withdraw the blood and add the citrate in his office and carry the blood with him to a point where he wishes to use it. The blood may be administered with the same ease as are other fluids, such as a 6 per cent solution of acacia in normal physiologic saline solution, which is occasionally used as a substitute for blood, or physiologic saline solution and various solutions of dextrose.

I feel that the general practitioner should be conservative in his use of anesthetics to insure the safety of his patients. The skill of the physician and his understanding of an anesthetic agent or method should govern its use. He should not select an untried or unfamiliar method or agent. Each new anesthetic agent or method is handicapped by its own newness and the professional anesthetist should be the one to make the clinical trial.

#### TOO MUCH COOLING MAY BE A MENACE

The practice of cooling public buildings to 80° F. or less in hot weather appears to be a distinct menace to the health of susceptible persons who expose themselves to contrasts in temperature. *The Journal of the American Medical Association* for April 29 asserts.

"In warm summer weather," *The Journal* says, "an indoor temperature of 80° F., or even 85° F., with low humidity is comfortable and desirable, from the standpoint of health, because the human organism becomes adapted to heat and cannot stand sudden drops in temperature, especially when the body surfaces are wet with perspiration."

Thermometers for recording room temperatures usually should be placed 36 inches above the floor and at least 3 feet away from the exposed walls. In rooms for the aged it is preferable to record the temperature at knee-height level, 18 inches above the floor.

The next annual session of the Association will be held in Savannah, April 23-26, 1940.

#### THE ST. LOUIS SESSION OF THE A. M. A.

*Considers Wagner Bill*

C. W. ROBERTS, M.D.  
*Atlanta*

The ninetieth annual session of the American Medical Association in St. Louis, May 15-19, convened in a spirit of optimism. This promising outlook had as its immediate background certain unmistakable evidences of an awakening on the part of many groups—government, lay and economic—to the dangers which threaten to interrupt the orderly progress and efficiency of the nation's time-tested plan of medical service.

Let it be said now that the physicians of America are not opposed to progress nor failing in their appreciation of the fact that time and changing social relations bring a host of problems which challenge the thoughtful consideration of all service organizations. These are inevitable. They do not, however, represent new experiences. In the past they were welcomed, as they are now, as the by-products of natural evolution. Our institutions have striven with commendable success to develop ways and means within the framework of our democratic system to adapt their services to changing social requirements. Nor has the medical profession of this country any disposition to speak critically of the high objectives incorporated in the utterance of public spirited citizens, or legislators, or labor, or industry, with respect to the need of some form of coordinated procedure capable of providing good medical care to a minority of our people now unable to secure without assistance complete service. That there have developed deficiencies in the application of the present system in spite of the positive efforts of a profession mindful of its social obligations none would deny. These deficiencies have been and are now of deep and continuing professional concern. But the physicians of the country make a distinction between advocates of change through orderly evolution and others who, although motivated perhaps in most instances by worthy anxiety over the plight of an underprivileged group, pro-

ceed under the spell of emotion or in the interest of personal ambition to devise ill considered remedial measures without first weighing their effect upon the public as a whole or their practical worth for the particular group whose welfare is championed.

It is because there are in the ranks of sound progressive leadership, particularly in public life, a dangerous and audible number of the visionary type who strive for quick action respecting matters which require approach through the application of our fundamental philosophy of well considered, cautious action—a group that has at times been permitted to assume unchecked initiative and to promote highly questionable proposals—that the doctors of this country, conscious of their responsibility to zealously guard the quality of medical care now enjoyed, have felt impelled to register determined opposition. With those progressive persons, whether in government or without, striving to apply sound remedies without the sacrifice of American safeguards and with all groups and agencies having the real medical welfare of the people at heart, the membership of the American Medical Association has striven to work in harmony in the hope that through coordinated efforts the best way might be speedily found to minimize such medical deficiencies as have grown out of economic dislocation. In opening these remarks, I spoke of the general optimism that prevailed among the officers and the members of the House of Delegates of the A.M.A., because of what appears to be an obvious swing in public opinion away from radical Federal legislation on health affairs. Evidence supporting this assertion comes from many quarters. The profession itself is united as never before in its history with an all time high of more than 112,000 members. Attendance on scientific meetings, National, State and local, show a pleasing growth. Programs reflect a devotion to scientific medicine and present a wealth of new procedures in both clinical and basic medical fields. This indicates that the profession has not slackened its initiative upon which our preferred position among the nations of the world now rests. Certainly, an early sign of dependence upon a regimented or politically controlled medical service would

be the appearance of aimless routine—of reversion to mediocrity. There are no such signs on the horizon. There is evidence, too, in the forums of public discussion, in clubs, churches, civic organizations, business circles, labor groups—in the work-a-day world about us—that the searching discussions emanating with increasing frequency from press and platform, presenting the dangers that lurk in proposed legislation regarding the provision of medical care at public expense, are bringing the type of resistance that may be expected to develop when the common sense of the American public speaks. It is to be noted too that the President in transmitting the Wagner Bill (incorporating essentially the proposals of the Interdepartmental Committee regarding study of the need for expanded medical facilities together with recommendations for Federal participation in their development) did so with the request that the Bill be made a basis of careful study, but without recommendation that it be enacted into law. These and many another straw indicate that the people of this country are not ready to accept any legislation which, however well intentioned, opens the way through liberal administration and political expediency to compulsory health insurance via the back door.

But these comments are not to be interpreted as an attempt to commit the great free profession of this country to a program of inaction or social casualness regarding the need for adaptive medical services for certain sub-comfort groups. Nor is it intended to imply that the generous impulse of the American public has been subverted or to deny that a sense of social equity makes it mandatory that careful attention and study on the part of government, the public itself and the profession, be unremittingly focused upon this problem until its solution without the loss of medicine's safeguards is a reality. None who is familiar with the past actions of the House of Delegates would accuse the profession's leadership in matters of policy, with a lack of appreciation of our responsibility for molding an attitude of tolerance for the views of others or for insisting upon a spirit of fullest cooperation with those individuals and groups who unselfishly strive to better

the lot of the less fortunate, whether their deficiency falls in the field of medicine or concerns the more basic need of better food, clothing, education and shelter.

Medicine has always enjoined upon its members the obligation of serving those who call them on a basis of ability to pay. This remains our bed-rock philosophy with regard to medical charges. But modern cooperative endeavors have educated people to look for systems of distribution—in commerce, in the service trades and the professions, based upon the spreading of costs over the group served—the so-called insurance principle. With this fact in mind, numerous plans incorporating variations of this principle for the delivery of medical care, have been devised by constituent units of the American Medical Association, with the encouragement and approval of the parent body. The special session of the House of Delegates, held in Chicago, February, 1935, approved ten principles which state and county societies were requested to observe in the development of new plans. The Medical Service Bureau of the Fulton County Medical Society is one of more than 150 such developments. This plan, like the others, is under society control and direction, thus preserving those principles in the delivery of medical care necessary to a high quality service. The ten principles growing out of the special session of 1935, like our code of ethics, were developed for the protection of the quality of medical care, and in the interest of the public, rather than that of the profession.

At the San Francisco session of the House of Delegates, June, 1938, and at the special session, held in Chicago, September 16, 1938, thoughtful and lengthy consideration was given to the proposals of the President's Interdepartmental Committee, which it was anticipated would be the basis of later legislation. The objectives of these proposals, with the exception of that suggesting the adoption of a compulsory health insurance scheme, were approved with certain qualifications believed to be essential in providing safeguards in the administration of a law incorporating these far-reaching proposals. These were briefly as follows:

(a) That there be established a Federal Department of Health, with a Doctor of Medicine at its head,

(b) That approval be given to the expansion of public health services, including maternal and child health services, but with the qualification that actual treatment of sick individuals under public health, maternal and child health programs, be done, when practicable, through the use of private practitioners of medicine.

(c) Expansion of hospital facilities was approved with the qualification that new hospitals be built only where the need could be demonstrated to exist and after all available beds in existing hospitals had been utilized.

(d) With regard to the medical care of the medically indigent, the House of Delegates insisted upon the application of the principle of local community responsibility, believing that such care should be given through organized local governmental units supported by tax funds when necessary. In the poorer communities where local tax funds were found to be not sufficient, there was recognition of the need for "grants-in-aid" by State and Federal participation. The House said further that the medical profession as a whole would welcome the appropriation of funds to provide medical care for the medically needy, provided public welfare administrative agencies be coordinated with that of local administrative groups and that the actual administration of such plans of medical care be under responsible local public officials in cooperation with the local medical profession.

(e) The principle of hospital service insurance was approved with the qualification that such plans confine themselves to the provision of hospital facilities and exclude all types of medical care. With respect, however, to the proposal opening the way for the setting up of compulsory health insurance schemes, the House of Delegates went on record as being unwilling to foster any system of compulsory health insurance, believing that such a system has no place in a democratic state.

(f) Finally, the House unreservedly endorsed the principle of compensation for loss of wages during sickness, but believes that in the interest of good medical care, the attending physician serving such insured persons be relieved of the duty of certification of illness and of recovery. Such special service would better be performed by a qualified medical employee of the disbursing agency.

In the interval between the Chicago special session, September, 1938, and the St. Louis Session of the Association, the special committee appointed by the 1938 extraordinary session of the House "to confer and consult with the proper Federal representatives relative to the proposals of the President's Interdepartmental Committee" attended two formal meetings in Washington and undertook to faithfully interpret the formal actions of the House of Delegates on the matter of a National Health Program, emphasizing the safeguards which the A.M.A. considered to be imperative in the interests of the public and in the preservation of a high quality medical



service. Notwithstanding, when legislation was drafted (The Wagner Bill) incorporating all the proposals of the Interdepartmental Committee and its Technical Committee there was notable absence of many of the safeguards to which the House of Delegates had called specific attention. With the Wagner Bill in its unmodified form pending in the Congress of the United States, and because of the importance of the problems upon which it bears, and further, because the recommendations and counsel of the Association's representatives had not been utilized in the drafting of this Bill, it becomes apparent that the principal interest of the St. Louis session of the House of Delegates would naturally revolve around the issue of Federal Health Legislation. Such proved to be the case. The Wagner Bill, intended to make effective a National Health Program recommended by the Interdepartmental Committee to Coordinate Health and Welfare Activities, was again carefully considered. The report of the reference committee of the House, adopted without a dissenting vote, is lengthy. The following summary, however, gives a complete picture of this report destined, I think, to go down in our history as an epoch-making document. Specific attention is directed to the fact that the House of Delegates recognizes as desirable the stated objectives of the Wagner Bill, but cannot approve the methods by which these objectives are to be obtained. It is to be noted that the summary does not constitute a repudiation of former actions of the House bearing upon the proposals of the Interdepartmental Committee, but rather further clarifies the principles involved and reemphasizes the necessity for incorporation, in any proposed legislation, certain essential safeguards to which attention has repeatedly been called.

#### SUMMARY

1. The Wagner Health Bill does not recognize either the spirit or the text of the resolutions adopted by the House of Delegates of the American Medical Association in September, 1938.
2. The House of Delegates cannot approve the methods by which the objectives of the National Health Program are to be obtained.
3. The Wagner Health Bill does not safeguard in any way the continued existence of the private practitioners who have always brought to the people the benefits of scientific research and treatment.
4. The Wagner Health Bill does not provide for the use of the thousands of vacant beds now available in hundreds of church and community general hospitals.
5. This Bill proposes to make Federal aid for medical care the rule rather than the exception.
6. The Wagner Health Bill does not recognize the need for suitable food, sanitary housing and the improvement of other environmental conditions necessary to the continuous prevention of disease.
7. The Wagner Health Bill insidiously promotes the development of a complete system of tax supported governmental medical care.
8. While the Wagner Health Bill provides compensation for loss of wages during illness, it also proposes to provide complete medical service in addition to such compensation.
9. The Wagner Health Bill provides for supreme Federal control: Federal agents are given authority to disapprove plans proposed by the individual states.
10. The Wagner Health Bill prescribes no method for determining the nature and extent of the needs for preventive and other medical services for which it proposes allotments of funds.
11. The Wagner Health Bill is inconsistent with the fundamental principles of medical care established by scientific medical experience and is therefore contrary to the best interests of the American people.
12. The fortunate health conditions which prevail in the United States cannot be disassociated from the prevailing standards and methods of medical practice.
13. No other profession and no other group have done more for the improvement of public health, the prevention of disease and the care of the sick than have the medical profession and the American Medical Association.
14. The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well being. It must, therefore, speaking with professional competence, oppose the Wagner Health Bill.
15. The House of Delegates would urge the development of a mechanism for meeting the needs for expansion of preventive medical services, extension of medical care for the indigent and the medically indigent, with local determination of needs and local control of administration, within the philosophy of the American form of government and without damage to the quality of medical service.
16. The fundamental question is how and when a state should be given financial aid by the Federal government out of the resources of the states as a whole, pooled in the Federal Treasury.
17. The bizarre thinking which evolved the system of Federal subsidies—sometimes called "grants-in-aid"—is used to induce states to carry on activities suggested frequently in the first instance by officers and employees of the Federal government.
18. The use of Federal subsidies to accomplish such Federally determined activities has invariably involved Federal control.
19. Any state in actual need for the prevention of

disease, the promotion of health and the care of the sick should be able to obtain such aid in a medical emergency without stimulating every other state to seek and to accept similar aid, and thus to have imposed on it the burden of Federal control.

20. The mechanism by which this end is to be accomplished, whether through a Federal agency to which any state in need of Federal financial assistance can apply, or through a new agency created for this purpose or through responsible officers of existing Federal agencies, must be developed by the Executive and the Congress, who are charged with these duties.
21. Such a method would afford to every state an agency to which it might apply for Federal assistance without involving every other state in the Union or the entire government in the transaction.
22. Such a method would not disturb permanently the American concept of democratic government.

As may be surmised, this report having dealt at some length with the background upon which the A.M.A. bases its positive and oft-expressed policies with respect to legislation affecting health, I must omit many actions of the House bearing upon a host of subjects concerned with a preservation of the physicians' traditional prerogatives and the peoples' form of unregimented medical service. A complete report of these actions will have appeared in current issues of *The Journal* of the A.M.A. All are urged to study them. You will be impressed, I think, with the consistency of the actions recorded—all intended to protect primarily the health welfare of the people, not however through edicts and commitments savoring of a dictatorial hierarchy, as has sometimes been alleged. Liberalism as applied to American Medicine by your servants in the House of Delegates will be found to be deeply tinged with common sense. Common sense, after all, is usually good sense.

At the concluding session, Thursday afternoon, the following officers were elected:

President—Dr. Rock Sleyster, Wauwatosa, Wis.

President-Elect—Dr. Nathan B. Van Etten, New York City.

Vice-President—Dr. Alphonse McMahon, St. Louis, Mo.

Secretary—Dr. Olin West, Chicago, Ill.

Treasurer—Dr. H. L. Kretschmer, Chicago, Ill.

Speaker of the House of Delegates—Dr. H. H. Shoulders, Nashville, Tenn.

Vice-Speaker of the House of Delegates—Dr. R. W. Fouts, Omaha, Neb.

The Association will meet next year in New York City.

## LABOR: ROTATION AND DELIVERY OF FETAL HEAD BY USE OF SUCTION CAP INSTEAD OF FORCEPS\*

*Report of Cases*

RICHARD TORPIN, M.D.

*Augusta*

During the past two years research work has been pursued at the University of Georgia School of Medicine concerning obstructed labor and the delivery, or rotation and delivery, of the fetal head by means of an original type of vacuum helmet, or suction cap, applied to the scalp instead of using obstetric forceps on the head.

Because of the original features of the device, my efforts have been far more successful than previous attempts which began with the work of J. Y. Simpson of England in 1848. He wrote several articles on the suction tractor or air tractor.<sup>1,2</sup> Apparently he was not very successful, for there is no mention of it in his book on obstetrics written twenty-five years later.

The next reference in the literature appears in United States patent papers<sup>3</sup> granted to H. L. Stillman of Rhode Island, in 1875, for a suction device and cervical dilator for obstetric use in the place of forceps. No record of the practical use of this has been found.

In 1890 Peter McCahey<sup>4</sup> of Pennsylvania gave a report on an atmospheric tractor for delivery. Two incomplete reports were found in regard to this, but they contained no description of the device or any case reports.

In 1933 Dr. Alberto Gladish<sup>5</sup> reported in *La Semana Medica*, Buenos Aires, several successful deliveries by "pneumoceps." He also was granted an English patent for his device. It is fundamentally different from the one described in this paper, and he made no claim for any value in rotating the head in occiput posterior or transverse arrest presentation and a study of the drawing in the patent papers shows that it was not intended to include that function.

*Force Requisite to Effect Delivery  
of the Fetal Head*

DeLee<sup>6</sup> states that the traction necessary to

\*Read before the Medical Association of Georgia, Augusta, April 28, 1938.

deliver the fetal head by forceps is seldom more than 60 pounds and usually much less.

Burdet Wylie<sup>7</sup> of the department of obstetrics and gynecology of the medical school of Western Reserve University, with the use of a "tractionometer" applied to the handle of the forceps measured the amount of force in each pull in 880 forceps deliveries, about one-third of whom were primiparas. He found the average pull to range from 22 pounds in low forceps in the multiparas to 42½ pounds in a small group of mid forceps in primiparas. The average number of pulls in the whole group was 3 or 4; the greatest number in any case was 10.

Woodbury, Hamilton and Torpin<sup>8</sup> in recent work with balloons in the uterus measured the expressive force of each labor contraction during the spontaneous delivery of 9 colored primiparas. The greatest amount of force exhibited during the greatest pain in each patient averaged under 30 pounds. One patient only was able to exact a force of 45 pounds during a pain.

Now, when the cervix is fully dilated, the head presents at least 10 or 12 square inches. On this area the atmospheric pressure is at least 150 pounds. Consequently, by reducing this pressure two-thirds over one-half of this area, one is able to counterbalance a force of 60 pounds or more. This is feasible and easily accomplished without trauma to the scalp by the device used in this work. Like its predecessors, this device<sup>9</sup> consists of a rubber concave helmet that fits the head. It also has a tubular connection from the concave surface to a vacuum pump fitted with a mercury gauge to measure the degree of vacuum. It also has a one-finger handle. The original feature of this model, and without which little success is entertained, is a method of preventing the scalp from blocking the opening to the pump. This is accomplished by a series of lugs about ¼ inch in diameter and having the elevation of ⅛ to ⅜ inch and rather evenly distributed over the concave surface. Instead of reducing the pressure only over the small opening it is reduced over the whole area between the lugs which touch and support the scalp. Thereby tractive force is maintained equal to or more than that necessary to deliver the head by forceps. The chief

advantage lies in the fact that there is no pressure exerted upon the bones of the skull. The device and the method of use was described in *The Journal of the Medical Association of Georgia*, March 1938, but is reproduced as part of this report for the convenience of the reader:

"The device presented and illustrated in Fig. 1 is essentially a somewhat flexible rubber concave hemisphere of a size to fit the fetal vertex rather snugly. In the center of the convex surface is a one-finger handle and adjacent toward one end is a hollow rubber tube leading from the vacuum pump and opening onto the concave surface. In addition, on the convex surface are two lugs for rotating.

"So far the description is quite similar to those experimented with in the past. Unlike those, however, in this device the concave surface is studded with rubber projections about ¼ inch in diameter, about ¼ inch apart and varying from about ⅛ to ¼ inch in elevation. The purpose of these is to keep the fetal scalp from blocking the small opening leading to the vacuum pump and thereby presenting as great an area as possible to the suction, inasmuch as the amount of effective pressure (or conversely negative pressure) increases in direct proportion to the increase in area. Several sizes are contemplated.

#### *Method of Use*

"The indications and conditions are identical with those in the application of obstetrical forceps. If the head presents as occiput posterior (the patient being anesthetized and the vagina dilated by hand) the cap, folded from side to side, is inserted into the vagina with the connecting tube posteriorly. Underneath the fetal head it is readily unfolded and with negative pressure of 3 inches of mercury it adjusts itself to the vertex. The negative pressure is then increased by the vacuum pump to 17 inches of mercury which firmly attaches the cup to the scalp of the vertex over an area of many square inches. It also prevents lateral or antero-posterior compression of the skull bones since the head fits the fixed concavity. Usually with one twist of the cap while grasping the external lugs the head is rotated to an occiput anterior presentation. A 2-minute rest with the negative pressure at 3 inches of mercury is allowed. Thereafter,



or at the onset of a labor pain, suction is again applied by pump to 17 inches of mercury and 40-pound pull is exerted upon the ring handle. Lubrication by sterile liquid soap is of value. This pull is maintained constantly for one minute (or if she is having regular pains, for the duration of the pain). The direction of traction corresponds to the station of the head in the birth canal. Following this another 2-minute rest period as above is given and then the 1-minute pull at 17 inches of mercury and so on alternating traction with rest until delivery of the head. Mesial episiotomy operation has been done in most primiparas.

"In case of the original presentation of occiput anterior the cap is inserted with the connecting tube anterior and rotation is unnecessary. Incidentally, those originally occiput anterior have required more traction than those originally occiput posterior."

#### *Report of Cases*

*Case 1.* A colored multipara, aged 24, in her third labor was admitted to the hospital Nov. 11, 1936. She had been administered seconal and hyoscine for analgesia and was in late second stage of labor. One of the earlier suction helmets (model C) was applied with the vacuum tube entrance over the posterior fontanelle to the right of the midline anteriorly. Partial vacuum was created to gauge 20 which with leakage was probably not over 8 or 10 inches of mercury negative pressure. The fetal head was easily extracted under full control as to rotation, flexion, etc. The child was apneic but pulse and color remained normal until respiration was fully established. There was no impression on the scalp at any time. There was no perineal laceration. The child weighed seven pounds.

*Case 2.* A colored primipara, aged 18, was sent into the hospital Dec. 6, 1936. The first stage of labor was 14½ hours long and she was in the second stage 2 hours and 55 minutes. She had 6 grains of pentobarbital and 1/150 grain of hyoscine for analgesia. When the head was at the vulva the patient's expressive forces stopped and a suction cap (model C) was easily applied so that the vacuum tube opening was over the posterior fontanelle and delivery was readily effected with one pull with the mercury gauge reading at 17 inches. The child, male, right occiput anterior, weight 8 pounds 6 ounces, had no marks or impressions on the scalp at any time. The child cried spontaneously. The vagina, which was not manually dilated, had no tear with the delivery of the head, but a second degree tear occurred on the right side with emergence of the shoulder.

*Case 3* will be deleted since it was an injudicious attempt to deliver a macerated fetus with marked edema of the scalp.

*Case 4.* A white primipara, aged 21. Application of the suction cap (model G) was made to the fetal head high in the pelvic canal and with the occiput

posterior and to the left. This was an easy application and there was firm suction and no movement of the device on the head per se. With the mercury gauge at 19 inches the greatest attempt at rotation was made but the head fit too tightly and absence of fluid in the amniotic sac hindered rotation. Traction to 40 pounds was used and all the strength in my right hand to rotate at this station failed to move the head and as seen later did not injure the scalp. Further efforts were discontinued and forceps applied. However, this method did not move the head. Consequently podalic version and extraction were resorted to. There was a mark of the forceps blade over one eye lasting a few days. There were no marks of the suction cap. The fetus was born with asphyxia pallida but recovered fully and went home with the mother at ten days in good condition.

*Case 5.* A colored primipara, aged 16, medium constitutional type, not anemic, entered the hospital at term on Feb. 9, 1937. After a prolonged second stage of labor the fetal head, with the occiput posterior and to the right, rested on the perineum. The head was rather small. The patient was administered ether for anesthesia by Dr. Akerman. A suction cap (model G) was easily applied so that the vacuum tube lay over the occiput to the right posterior. The suction to 14 inches of mercury was applied. The head was rotated to occiput anterior by one twist of the cap. The head was brought down by traction. However, air came in under the rim of the cap due to smallness of the head which was then left on the perineum not quite half visible. Dr. Frech then applied forceps and completed the delivery. The scalp showed no effect. The baby, 6½ pounds in weight, breathed spontaneously and did not become cyanotic.

*Case 6.* A colored para II, 20 years old, entered the hospital March 2, 1937. She was at term and had been in first stage of labor for 10 hours and in the second stage for more than 2 hours. There was slight bulging of the perineum and the occiput was posterior and to the right. Her bladder was catheterized and the vagina was ironed out to the size of a closed fist. The suction cap (model H) was smeared inside and out with sterile liquid soap and with the air inlet over the posterior fontanelle, it was folded from side to side and was readily applied to the fetal scalp. The head was pushed into the cap from above and 3 inches of mercury suction helped to fit it well. The suction was increased to 17 inches of mercury and with one exertion on the cap the head rotated to the anterior position. Then a constant pull of 40 pounds was exerted upon the cap handle for the duration of a labor pain. When the latter was over, pulling was stopped and the suction was reduced to 3 inches (enough to hold the cap on the scalp). When another uterine contraction occurred the suction was again increased to 17 inches and traction exerted to 40 pounds for the duration of the labor pain. Advance was steady and delivery was effected at the end of the second pull with the occiput anterior and to the right. There was a caput succedaneum over the left parietal bone. The fetus weighed 6½ pounds and breathed spontaneously. There was no vaginal tear and there were no marks on the fetal head. Assistants Dr. Robinow, Dr. Charles Mulherin, Dr. Crichton; witnesses Dr. Woodbury, Miss Strom, supervisor.

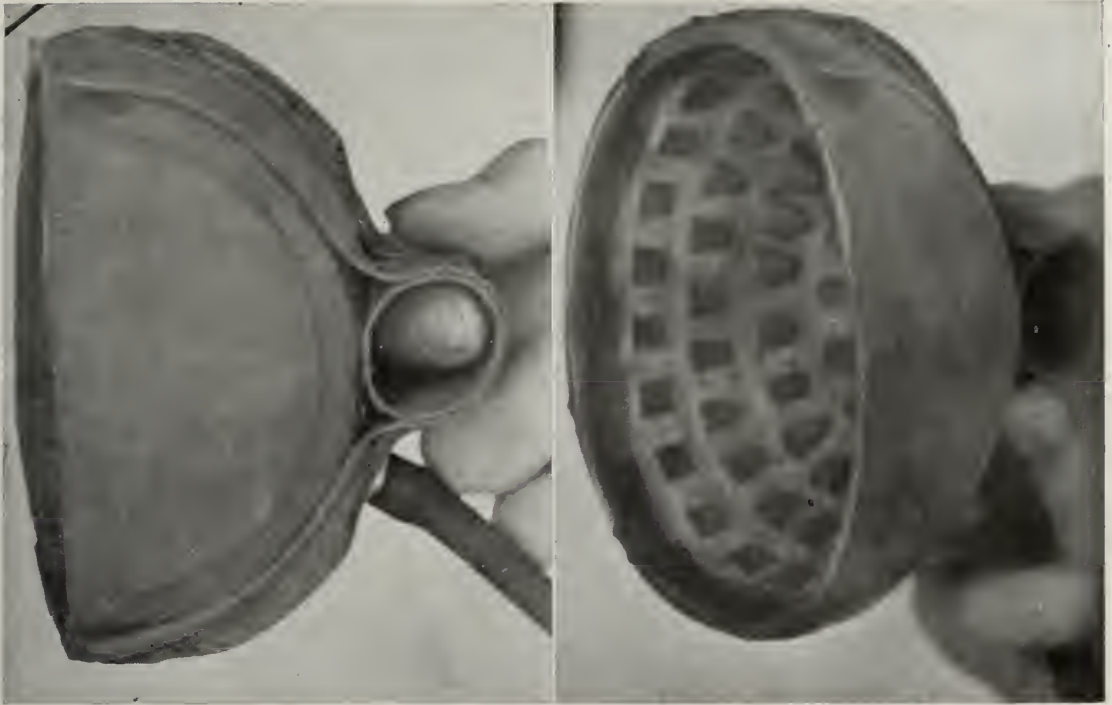


Fig. 1. Two photographs of the device, one taken laterally and the other taken in such manner as to show some of the lugs upon the inner surface.

*Case 7.* A colored primipara, aged 18, entered the hospital March 7, 1937. She had been in labor more than 18 hours and the cervix had been fully dilated more than 2 hours. Ether anesthetic was administered by Dr. Robinow. Dr. Temples ironed out the vagina and applied suction cap (model H) after determination of size of head and presentation by palpation, left occiput anterior. The cap applied rather easily by smearing it over with thick green soap. The head was pushed down into the cap as 3 inches of mercury suction was made by a tonsil suction machine. The patient did not have any labor pains due to the anesthesia, so the suction was increased to 17 inches of mercury and 40 pounds of pull exerted in line perpendicular to superior strait for one minute. The vacuum was then released to 3 inches and the head allowed to rest at the perineum. At the end of the second pull as above, the head delivered after left mesiolateral episiotomy was done. The female infant, weighing 7 pounds, 2 ounces, had a large, hard, round head. The infant and mother left the hospital well.

*Case 8.* A colored primipara, aged 16, obese type in eclampsia, with history of no prenatal care, entered the hospital Feb. 9, 1937. She had been in the first stage of labor 48 hours and in the second stage 11 hours. Her blood pressure was 185/90, albumin four plus and she had had 3 sets of convulsions. Examination revealed the cervix dilated with the head down to the perineum and presentation right occiput posterior. Delivery was effected by suction cap applied as previously described in occiput posterior presentations. With mercury gauge at 17 inches and the cap well fitted to the head rotation was easily accomplished and with two one-minute tractions at 40 pounds, the head readily delivered after mesial episiotomy. The female child weighed 7 pounds, 2 ounces. The baby breathed with

difficulty but was revived and both mother and child went home in good condition on the seventh day. The mother's highest temperature was 100° once. Her blood pressure at dismissal was 128/90.

*Case 9.* A white primipara, aged 18, was sent in to the hospital on May 4, 1937, by Dr. Crichton who stated that he had made a vaginal examination and had found presentation left occiput posterior and the cervix at nearly full dilatation. Four hours later the cervix was fully dilated with the head stationary on the perineum. The patient was prepared for delivery. The suction cap was applied to the fetal head which had apparently rotated to left occiput anterior presentation. The head was small in size with a caput over the posterior right side. The cap fitted well. Suction was applied to 17 inches of mercury and traction made of 40 pounds for one minute followed by two-minute rest and then the order repeated. Delivery took place after 4 pulls and following mesial episiotomy to sphincter ani. The female child, weighing 7 pounds, had no marks on the scalp. The condition of both mother and child was normal. During the afternoon the fetal scalp presented a caput 1 cm. thick, size 2 x 5 cm. over right side posteriorly. The next day a few 1/2 mm. diameter superficial vesicles developed over the region of the caput.

*Experiment.* On June 1, 1937, a full-term still-born fetus was delivered by embryotomy with shoulder and head intact. The suction cap was applied to the head with scales attached to shoulders to measure traction. At 12 inches of mercury vacuum traction was measured at 40 pounds. There was no way to keep air from entering at the edge of the cap and at greater traction the cap came off. This was repeated two or three times with similar results.



*Case 10.* A white primipara, aged 21, of medium constitutional type, was referred from the out-patient department by Dr. Crichton. This was the first patient in 100 to require manual aid in delivery. In her case the fetal head remained on the perineum three hours. The head was normal in size with marked caput over the left parietal bone, presentation right occiput anterior. There was a sharp angulation at the tip of the coccyx so that the terminal one-half inch turned inward at right angles and was fixed. This no doubt interfered with delivery. The larger suction cap (model H) was applied but it was defective through repeated sterilization, being too resilient and had a tendency to collapse. One pull of 40 pounds was exerted. This cap was removed and the smaller size, which was firmer, inserted, by use of Berry's uterine clamp, with opening over the posterior fontanelle. Traction was exerted to 40 pounds, 17 inches of mercury for one minute followed by a two-minute rest period. At the end of the second pull the head was delivered. There were no marks on the head. Operation started at 5:20 a.m.; the head was delivered at 5:37 a.m. after mesial episiotomy. The female child weighed 8 pounds, 2 ounces. The ether anesthesia was given by Dr. Wilkes and the episiotomy repaired by six sutures by Dr. Coppedge.

*Case 11.* A white primipara, aged 22, of medium constitutional type, was admitted to the hospital on Nov. 2, 1937. She had had pains 5 minutes apart all night; during the day, 3 minutes apart. The progress was slow but at noon the head engaged plus 1 cm. The mother and the child were in good condition. Full dilation occurred at 2 p.m. At 4 p.m. there was a slight bulging of the perineum but not enough to separate the labia. At 5 p.m. the patient was prepared and examination revealed the head in midpelvis and right occiput anterior presentation. A caput was over the left parietal bone 1 cm. thick. The suction cap (model J) was applied and 3 pulls exerted as above described. The cap collapsed. The larger suction cap (model H) was applied and after 8 pulls altogether, the head was delivered. The male child weighed 6 pounds, 5 ounces. There was a caput over the left parietal bone 1 cm. thick but there were no other marks. This was the most difficult of any case so far. The infant cried spontaneously. The placenta was delivered in 10 minutes. The mesial episiotomy was repaired with 7 silk sutures. On Nov. 3, 1937, there were a few fine vesicles in the skin over the caput. On Nov. 5, 1937, the baby developed cephalhematoma over the left parietal bone without marks on the skin. Recovery was spontaneous and the hematoma ran the usual course.

*Case 12.* A white primipara, aged 27, entered the hospital on Dec. 28, 1937, with diagnosis of dystocia dystrophy syndrome. She was heavy, stocky type, with male distribution of hair on abdomen. Her temperature was 100.6 and pulse 100. Three doses of hyoscine and pentobarbital were given during the first stage. The suction cap was applied with a vacuum of 17 inches of mercury. Traction to 40 pounds with 3 pulls was given and then episiotomy and one more pull. The suction cap had a tendency to collapse from frequent sterilization. This was removed and the child delivered by forceps.

*Case 13.* A colored primipara, aged 19, of medium constitutional type, came into the hospital on March 4, 1938. Her pains had started at 11 a.m. of the same day. The membranes ruptured at 1:20 a.m., March 6, and she was delivered at 1:30 a.m. The cervix dilated and was effaced early the evening before. She had uterine inertia with presentation right occiput anterior and a large caput. The baby weighed 6 pounds, 5½ ounces. Dr. Coppage applied the suction cap and delivered with 3 tractions. The mother and baby were in good condition. The baby nursed well.

### Comment

With the possible exception of Case 1, all of these were with conditions indicating operative delivery, i. e., second stage prolonged more than two hours. This series of 13 cases include all of them and are practically verbatim reports from the record taken at the time of delivery. They represent an unselected one-half of all of the operative deliveries that occurred in 1,000 consecutive deliveries on the charity service including hospital and out-patient departments.

All of the suction caps were handmade, using 4-inch diameter rubber toy balls and tire patching and cement. They were graded to mechanical efficiency as to proper size, thickness, resiliency, collapsibility, etc.: model C, 40 per cent; model G, 50 per cent; H and J, 70 per cent (later reduced by repeated sterilization). Molded rubber caps are now in process of development. Much greater efficiency is expected from properly manufactured models.

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### DISCUSSION ON PAPER OF DR. RICHARD TORPIN

*Dr. S. T. R. Revell (Louisville):* I don't know whether or not Dr. Torpin's invention is going to be satisfactory and help those of us who are poor obstetricians to do better obstetrics, but I do believe that it is an important innovation, and as a result of it progress will be made.



## CROSSED ECTOPIA OF THE KIDNEY

*Report of Case*

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*Macon*

A kidney which has deviated from the side of the body it was intended and has come to lie on the opposite side, with the ureteral orifices in their normal position in the bladder, is referred to as crossed ectopia of the kidney. This anomaly, while not an extremely rare condition, is sufficiently uncommon to be of interest when such condition is discovered.

The chief differences between an ectopic kidney and a double kidney, with which it is often confused, are:

1. In a double kidney, the ureters end on the same side of the bladder as the anomaly, while in crossed ectopia the two ureters end in opposite sides of the bladder.

2. In the double kidney it is not uncommon to have the anomaly on both sides, while in crossed ectopia the condition must necessarily be an unilateral one.

The cause of crossed ectopia has been a subject of much discussion, there being two schools of thought; one claiming the displacement due to failure of ascent of the kidney, the other believing it due to descent of the kidney. Both schools, however, believe the mechanism involved is closely knit with the process of vascularization. Other factors include the form of the ureteral bud as to its location and branching. It is generally thought that the marked forms of displacement occur early in embryonic life.

As already stated, crossed ectopia is rather uncommon and until a few years ago all cases discovered were at necropsy, or during exploratory operations of the abdomen; it is a surprise finding during routine cystoscopic and roentgen-ray studies. We missed the diagnosis on the case here reported, thinking it was ptosis of the right kidney. It has been stated that crossed ectopia occurs about once in six thousand cases; and the fused type, where the two kidneys are fused, occurs about ten times as often as the unfused type. Our



Figure 1  
Diagnosis: crossed renal ectopia.

patient had the fused type. Interesting is the fact that 70 per cent of the patients reported with this condition had the anomaly on the right side; that is, the left kidney had migrated to the right side. This was true in our case. Sex does not seem to play a part.

*Report of Case*

An adult white female reported to a local physician complaining of pain in the right lumbar and iliac regions of two years' duration. At the onset the pain came on rather sudden and was accompanied by nausea and vomiting. She was treated for appendicitis, and her symptoms subsided. Soon after this she developed a mild dysuria which has been more or less constant. No hematuria was noted. No history of chills or fever. She claimed she felt worse following a recent automobile accident. Her physician found a mass in the right side of the abdomen just above the crest of the ileum, which was movable and very tender. He asked us to see the patient and, after examination we advised her to go to the hospital for cystoscopic and roentgen-ray studies.

After admission to the hospital on June 8, 1937, a large mass about the size of an orange was palpated in the right side of the abdomen. This mass was movable and tender; it resembled a kidney. Heart and lungs normal. Blood pressure 124/80. Physical examination was otherwise insignificant. It was found, on questioning, she had had a fullness in the right side of abdomen all her life, but had not felt pain until two years ago.

*Menstrual History*—Onset at the age of 13; always irregular, often skipping two or three months; very painful. During the course of a period large blood clots were always passed.

*Laboratory Work*—Urine amber; specific gravity 1.016; acid in reaction; trace albumen; sugar negative; microscopic negative. Blood—W.B.C. 6,500.

Neutrophils, 65 per cent; Large lymphocytes, 6 per cent; Small lymphocytes, 27 per cent; Eosinophils, 2 per cent; Hemoglobin, 75 per cent; Wasserman, negative.

*Cystoscopic Examination*—Number 21 cystoscope passed into the bladder without difficulty. Urethra and bladder mucosa normal. The ureteral orifices were normal in position and in appearance. Number 6 catheter passed up both ureters without evidence of obstruction. Flow of clear urine free and intermittent. Intravenous P.S.P. appeared from both kidneys in three minutes. The concentration from the right side was 5 per cent in 10 minutes, and 4 per cent from left side in the same time. The laboratory reported an occasional pus cell in the specimen from each kidney.

On roentgen-ray examination the catheter in the left ureter was found to cross over to the right side at the level of the fifth lumbar vertebra and the right ureter was pushed out of line slightly. The pyelogram showed the two kidneys fused together on the right side. To further study the patient we made several intravenous pyelograms. A retrograde pyelogram is presented for the readers' observation.

With the exception of a slight reaction following cystoscopy the patient has felt much better. The pain in her back has improved and at the present time she has no urinary symptoms.

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#### DISEASE OF BILIARY TRACT ASSOCIATED WITH DISTURBANCES IN CHOLESTEROL METABOLISM

JOHN RUSSELL TWISS and JAMES H. BARNARD, New York (*Journal A. M. A.*, Sept. 10, 1938), treated 110 medical and surgical patients with disease of the gallbladder and associated hypercholesteremia with a low cholesterol diet. A control series of thirty-five patients did not receive this diet. Of eighty medical patients 82 per cent showed an appreciable reduction in blood cholesterol; 80 per cent were symptomatically improved. Fifty per cent of the control group showed an inconsequential reduction of blood cholesterol; 33 per cent were symptomatically improved. Of the thirty surgical patients treated with the low cholesterol diet after cholecystectomy, 67 per cent showed an average reduction in blood cholesterol of 24 per cent; 79 per cent were symptomatically improved. In the control group 65 per cent of the patients showed an average reduction in blood cholesterol of 5 per cent and 64 per cent showed symptomatic improvement. Of the surgical patients who had symptoms after cholecystectomy and were treated with the low cholesterol diet, 10 per cent of those showing a reduction in blood cholesterol were unimproved. In the control group 40 per cent were unimproved. Minimal readings of the blood cholesterol were obtained within the first eight months for 93 per cent of the medical patients on the low cholesterol diet.

#### INTRAPLEURAL PNEUMONOLYSIS AS AN ADJUNCT TO PNEUMOTHORAX IN THE TREATMENT OF PULMONARY TUBERCULOSIS

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The adoption of surgical methods to produce collapse of the lung is a relatively new development in the treatment of pulmonary tuberculosis and has brought radical changes in the management of the tuberculous patient. Within the last fifteen years collapse therapy has evolved from sporadic reports, received with indifference or distrust, to the present universal and enthusiastic recognition of the value of surgery as an indispensable adjunct to sanatorium treatment. According to an estimate by Alexander,<sup>1</sup> some form of collapse therapy is employed in from 50 to 80 per cent of all patients admitted to a majority of the leading institutions in this country. In fact, collapse therapy has passed beyond the purely experimental stage and has become a permanent and necessary part of the therapeutic regime in this disease.

Unfortunately some of the important surgical procedures used routinely elsewhere have not been widely adopted in this section of the country. Although much has been accomplished within the last few years by the various local and State tuberculosis agencies in making collapse therapy available to more individuals (Abercrombie<sup>2</sup>), an appalling number of patients, particularly in rural and Negro districts, will die this year who could be saved by proper surgical treatment. Constant effort is being made to widen the use of pneumothorax but facilities for major collapse surgery are limited to far too few institutions. In many of the public and private hospitals where these facilities are available, the waiting list is long and the number of beds is often limited to patients with the most pressing need. Therefore, major collapse measures are often denied to patients early in the disease, at a time when surgery would render the greatest service. There are not more than 750 beds in public and private hospitals available in Georgia for the diagnosis

\*Read before the Medical Association of Georgia, Atlanta, April 26, 1939.

and treatment of tuberculosis<sup>2</sup> and few of the five tuberculosis institutions are adequately equipped for major chest surgery.

With this problem in consideration, the first purpose of this paper is to emphasize the need for the more extensive use of collapse therapy in this section of the country by a few preliminary remarks regarding collapse measures in general. In this connection, merely a reiteration of authoritative opinion is given. The second objective is to discuss in some detail the technic and indications for intrapleural pneumonolysis and the value of this procedure in rendering pneumothorax, the most commonly used form of collapse therapy, a more clinically successful procedure. Material for these comments was gathered from forty cases which have come under personal observation from the Atlanta Tuberculosis Association Clinic and from the surgical service of Dr. E. C. Drash at the University of Virginia. X-ray films from representative cases were selected from these sources for reproduction by lantern slides and photographs. General conclusions and statistical data were obtained from the literature since small series of cases do not provide valid comparative figures.

#### *General Considerations*

The passive attitude of treating all patients with tuberculosis by simple hygienic measures alone and of ignoring the numerous benefits of collapse therapy is not only obsolete but is the type of negative activity that frequently denies the tuberculous patient his only chance of a clinical cure and a useful future. The pthsiotherapist who neglects the institution of some form of collapse therapy in certain selected and suitable cases of tuberculosis voluntarily contributes to the already high mortality rate of this disease. Authoritative opinion (Alexander,<sup>1</sup> Moore,<sup>3</sup> Matson<sup>4</sup>) is unanimous that the proper and judicious use of surgical methods lessens the chances of relapse, reduces the mortality rate, and offers to a large group of tuberculous patients their only chance of recovery (Alexander<sup>1</sup>). At this point, it should be emphasized that the most enthusiastic advocates of collapse therapy do not discredit the inestimable value of sanatorium treatment, but consider it only as a necessary supplement to the

usual medical regime in suitable and carefully studied cases. In probably no other single disease is it so imperative that both the clinician and the surgeon be in such intimate contact with the patient during the entire course of the disease.

With the adoption of new collapse operations and the improvement in technic of the older procedures, the application of surgical methods in tuberculosis has become a broad and comprehensive subject requiring not only wide experience in the clinical aspects of the pthisis, but considerable specialized training in surgery of the chest. All of the numerous surgical procedures (the three most commonly used being pneumothorax, phrenic paralysis and thoracoplasty) were designed with a single objective; that is, pulmonary collapse, in order to produce closure of a cavity and permanent recovery of the patient. For example, collapse of the lung is obtained by injection of air into the pleural cavity (pneumothorax), by either temporary or permanent relaxation of the diaphragm with phrenic nerve paralysis, by removal of a section of the chest wall (thoracoplasty), and by numerous other surgical procedures. Each operation has its limitations and is applicable only to certain stages of the disease. Therefore, the efficacy of collapse therapy often depends entirely upon the choice of operation. Each patient presents a different and specific problem and no hard and fast rule can be followed in choosing the operation that will insure a satisfactory collapse. Frequently more than one operation is utilized either simultaneously or consecutively by the trial and error method.

A number of variable factors enter into the final choice of operation; that is, the extent and duration of the tuberculous lesion, the general systemic condition and vital capacity of the patient, his chances of recovery without operation, the operative risk involved, and probably most important, the rate of progression or regression of the lesion (Alexander<sup>1</sup>). Good operative results depend far more upon the application of experience and sound judgment in selecting the most suitable form of collapse therapy for a given lesion than upon the merits of any single operation. Regarding the judicious



selection of operation, authorities in chest surgery emphasize the following cardinal principles (Alexander,<sup>1</sup> Matson<sup>4,5</sup>): first, no form of collapse therapy, with the possible exception of a few of the simpler procedures, such as pneumothorax and phrenic paralysis, should be attempted in institutions that are not equipped for major chest surgery, and never by an operator who is not competently trained in the field. Second, the least extensive, that is, the simplest and least dangerous operation is the preferable initial procedure, provided, of course, the lesion is suitable for probable success with the operation chosen.<sup>1</sup> As a rule, the simple operation is successful only with a small lesion. Therefore, early collapse is not only desirable, but often prevents the necessity for more dangerous surgery late in the disease. Although many patients with small lesions recover without benefit of surgery, even for operators of wide experience it is frequently impossible to predict the outcome at the stage when collapse therapy can do the most good (Alexander<sup>1</sup>). With the average early case of tuberculosis, either phrenic paralysis or pneumothorax is usually tried first, and more radical operations are not usually done until these simpler measures have failed to produce the desired results. For example, collapse of the chest wall by removing the bony support as is done in thoracoplasty is the most effective means of collapsing a cavity, but obviously a patient should not be subjected to this relatively dangerous operation unless simpler procedures have either been tried or the lesion is not suitable for any other operation.

#### *Intrapleural Pneumonolysis—An Adjunct to Partial Pneumothorax*

The most widely used form of collapse therapy is artificial pneumothorax (injection of air into pleural space to produce lung collapse). This procedure alone has markedly reduced the mortality rate of the disease and is considered the greatest advance in the treatment of tuberculosis since Deweiler<sup>6</sup> advocated the principles of bed rest in 1870 (Matson<sup>5</sup>). In general, pneumothorax should be instituted when bed rest has proved inadequate and when lesions are not suitable for treatment by diaphragmatic paralysis (Alexander<sup>1</sup>). Although the efficacy of pneu-

mothorax is readily admitted by all therapists, and numerous statistics are available which show a direct relationship between the mortality rate and the degree of collapse of the tuberculous lung (Moore<sup>3</sup>), pneumothorax is frequently unsuccessful and incomplete because of the presence of adhesions between the visceral and parietal pleura. According to Matson,<sup>4</sup> pleuritic adhesions are responsible for 40 per cent of all failures in pneumothorax therapy. Few fail to recognize the need for pneumothorax, but many overlook the fact that a clinically unsuccessful pneumothorax often can be made strikingly successful by the simple division of adhesions by means of the thoracoscope. The literature is abundant with reports of cases in which effective collapse is prevented by adhesions that are easily severed and a partial collapse is converted into a complete collapse followed by clinical success.

It is not an infrequent observation that a single string or band-like adhesion, stretched taut between a partially collapsed cavity and the thoracic wall renders a pneumothorax mechanically and clinically ineffectual (Matson<sup>4</sup>). A majority of adhesions, however, are multiple and are almost invariably adjacent to superficial cavities and, therefore, hold open the specific area of the diseased lung that needs most the rest obtained by satisfactory pneumothorax (Alexander,<sup>1</sup> Matson<sup>4</sup>). This unfortunate obstacle to the best results from pneumothorax is illustrated by Matson's<sup>4</sup> comparison of the value of pneumothorax in a large series of patients with and without adhesions. In the group with no adhesions and adequate collapse, the mortality rate was 21 per cent as opposed to a mortality of 50 per cent with only partial collapse, due to adhesions that prevented the "mechanical and physiological benefits of pneumothorax."

It is now generally admitted that a majority of pneumothorax failures can be made easily successful by intrapleural pneumonolysis; that is, the severing of adhesions under thoracoscopic control. By inserting the thoracoscope into the chest wall through a small incision, the pleural cavity may be inspected and suitable adhesions divided. The procedure is often called thoracic endoscopy

and is employed for only one purpose, namely, to divide adhesions that prevent the effectiveness of pneumothorax.

#### *The Thoracoscope*

In 1913, Jacobaeus,<sup>7</sup> of Stockholm, devised the first thoracoscopy for intrapleural pneumonolysis. The instrument, similar in design to a cystoscope, was at first imperfect in construction but was later modified and is widely used at the present time. Unverricht<sup>8</sup> contributed to the technical perfection of the operation by the introduction of the Zeiss lenses which allowed a better field of vision. With the constant improvement of instruments and technic, thoracoscopy has developed from a dangerous emergency procedure to a relative simple and safe operation with few serious operative complications.

At the present time, two types of instruments are available. First, the two-canula endoscope, necessitating two incisions through the chest wall. With this type of instrument, an observation telescope is inserted into the chest through one opening and an instrument for dividing adhesions through another. The adhesions are severed either by galvanic cauterization or by a high frequency electrode; the latter being the most recent and important innovation in intrapleural endoscopy. The second type of instrument is the single-canula, or single-entry type, in which both the transilluminating telescope and the cutting instrument are contained in a single canula. The single-entry instrument makes use of an electrode with a high frequency current since the limited space does not allow for adequate insulation required for the galvanocautery. This is no disadvantage since numerous operators consider electrosurgery far superior to the use of the galvanocautery (Moore,<sup>3</sup> Matson,<sup>5</sup> Drash<sup>9</sup>).

Moore<sup>3</sup> has summarized the advantages of electrosurgery as opposed to galvanocauterization. By the use of the high frequency current, the smoke and heat from the cautery is eliminated, thereby reducing the incidence of postoperative effusions; the zone of coagulation necrosis is narrower with the electrode, thereby reducing the likelihood of hemorrhage which is one of the greatest dangers of intrapleural pneumonolysis; adhesions are more quickly divided with the electrode and the

operative time is shortened. There are two disadvantages: electrosurgery is said to be more painful and the apparatus required is more expensive.

Opinion is divided concerning the relative merits of the two types of instruments. It appears that a majority favor the two-canula type. Having used the Cutler single-entry thoracoscope exclusively, I prefer this type of instrument. Relative to this question, I am in accord with the opinion of Anderson and Alexander<sup>10</sup> that good results depend far more upon the nature and suitability of the adhesions for division plus the skill and experience of the operator, than upon the type of instrument used.

#### *Suitability of Adhesions for Division*

Unfortunately, all adhesions that render pneumothorax ineffective are not suitable for division. It is estimated that adhesions occur in about 25 per cent of all patients treated by pneumothorax (Matson<sup>4</sup>), but there is no unanimity of opinion relative to the percentage suitable for pneumonolysis. Matson<sup>4</sup> states that 45 per cent of his cases of partial pneumothorax presented adhesions suitable for division with the thoracoscope. In studying retrospectively the roentgenographs of 91 dead patients before the use of the thoracoscope, he believes that, in the light of the present therapeutic results of endoscopy, from 40 to 50 per cent of the patients could have been saved had pneumonolysis been instituted. Anderson and Alexander<sup>10</sup> state that relatively few of all pneumothorax patients have adhesions suitable for pneumonolysis (14.8 per cent of 627 cases), but believe that the percentage is much higher in cases of partial pneumothorax. In his earlier reports O'Brien<sup>11</sup> made the statement that in his extensive experience the need of pneumonolysis rarely arose. With approximately 2,000 pneumothorax refills per month over a period of five years, this operation was done on only 16 patients. At a later date,<sup>12</sup> however, he became an enthusiastic advocate of pneumonolysis (Discussion of report by Drash<sup>13</sup>). Unverricht,<sup>14</sup> who has had wide experience with the operation, has stated that many of the present reports are over enthusiastic and that less than 10 per cent of pneumothorax patients have adhesions suitable for division.

Within the last year, 231 patients have been treated with pneumothorax at the Atlanta Tuberculosis Clinic. Of these, 8 presented adhesions suitable for division.

Numerous types of adhesions have been described. All classifications are based on the appearance of the adhesions under thoracoscopic examination since their roentgenographic appearance is often misleading. Maurer<sup>15</sup> has classified adhesions according to the size and shape of the thoracic and pulmonary insertions. When these insertions are narrow and the adhesions assume the forms of strings, cords, or narrow bands, they are easily divided with the thoracoscope. When the insertions are broadened out and the adhesions are fan-shaped, cone-shaped, spool-shaped or diffuse in type, the division becomes more difficult and frequently dangerous because of the likelihood of lung tissue, cavities, or blood vessels extending into the body of the adhesion. Obviously, two of the greatest hazards of pneumonolysis are: first, the rupture of a tuberculous cavity and the consequent spread of the infection into the pleural space and, second, the cutting of a blood vessel which may result in uncontrollable hemorrhage.

In the final analysis, the operability of adhesions can be determined only by thoracoscopic examination. The statement by Head<sup>16</sup> that tuberculosis is always more serious than it seems may well be applied to adhesions studied roentgenographically. It is almost always true that adhesions are more extensive than they appear on the x-ray film. Stereograms are of considerable aid in locating and evaluating adhesions, but here again accurate interpretation is difficult and often impossible. For example, many fan-shaped adhesions may appear to be easily-severed bands if taken at an angle, and many offending adhesions may fail to appear on the film at all. Occasionally what appears to be an easily divisible adhesion may even be the floor of a cavity adherent to the chest wall (Matson,<sup>4</sup> Alexander<sup>1</sup>). On the other hand, many adhesions that appear impossible of division roentgenographically pneumothorax into a satisfactory, curative are found to be easy to divide at some narrow point when viewed with the thoracoscope. Even if complete division is impossible,

many adhesions can be partially divided, coagulated or cautiously dissected to allow for stretching sufficiently for collapse of the cavity. Stretching adhesions that have been partially severed under thoracoscopic control is frequently effectual in converting an inadequate collapse.

#### *Indications and Contraindications*

The mere presence of adhesions between the visceral and parietal pleurae is no indication for pneumonolysis. Probably the large majority of adhesions do not interfere with a satisfactory collapse because of their elasticity. Fine, string-like adhesions that move freely with each respiration are innocent and harmless and should be left alone. Adhesions should never be divided unless the evidence is conclusive that they are offering a mechanical interference with the collapse program. Factors other than the presence of suitable adhesions also must be taken into consideration before subjecting a patient to pneumonolysis. From a technical point of view, there must be a pneumothorax space of sufficient size to allow an adequate working space for the instrument. The vital capacity of the patient is always an important factor to consider since a too sudden and complete collapse of the lung, following the release of an offending adhesion, may seriously embarrass a patient with a low respiratory reserve or with an extensive contralateral pneumothorax. The mere presence of a contralateral pneumothorax is no contraindication for the operation, provided the indications for bilateral pneumothorax exist (Matson<sup>17</sup>). Fortunately the division of adhesions does not always seriously lower the vital capacity of the operated lung since the release of adhesions near a cavity permits collapse with a minimum of pressure in the area where it is most needed and allows the other more disjointed and healthy areas of the lung to remain either wholly or partially expanded.

Since intrapleural pneumonolysis is considered a rather difficult operation, it should never be employed until pneumothorax has been given a fair trial. Occasionally an adhesion may stretch from the pressure induced by the pneumothorax to allow for adequate collapse and closure of the cavity. In such an



instance, pneumonolysis is an unnecessary risk to the patient. Even when a patient has adhesions suitable for lysis, as a rule, pneumothorax should be given a three to six-month trial before the thoroscope is used (Alexander,<sup>1</sup> Moore<sup>3</sup>). Another equally important reason for delaying the operation for a few months is that very young adhesions are more difficult to sever than those treated by pneumothorax, since many short adhesions stretch under pressure to a length more suitable for cutting (Alexander<sup>1</sup>). Stretching of adhesions should come about with the ordinary amount of intrathoracic pressure, since the increase of pressure to a high level is "seldom effectual and often dangerous" (Matson<sup>17</sup>). When pneumothorax has been given a fair trial and it can be demonstrated that adhesions are preventing an adequate collapse, intrapleural pneumonolysis should be done without delay before adhesions become organized and collateral circulation has been established (Matson<sup>4</sup>). It follows, then, that adhesions should be neither young nor old to insure the best results. The optimum time for the institution of pneumonolysis is from three to six months after pneumothorax is begun, unless some other complicating factor intervenes.

According to Alexander,<sup>1</sup> the indications for early pneumonolysis during the first three months of pneumothorax treatment are as follows: first, severe hemoptysis or violent coughing in the presence of adhesions which appear suitable for lysis; and second, when adhesions are holding open a cavity contiguous with exudate lesions. In either instance, there is the constant danger that irritation from the tug on the adhesion during inspiration may cause progression of the lesion and perforation into the pleural cavity.

Other operations are sometimes indicated even when adhesions are present that can be easily severed. In the cases of partial pneumothorax in which the lesion is so located that collapse of the cavity can be obtained by elevation of the diaphragm, phrenic paralysis should be done before or instead of pneumonolysis despite the presence of adhesions. Alexander and Anderson<sup>10</sup> list the following types of cases in which intrapleural pneumonolysis should be done in preference to phrenic

paralysis: (1) those with suitable adhesions adjacent to an actively progressing lesion, since the tension exerted on the lesion during respiration is dangerous even if the diaphragm is paralyzed by phrenic nerve paralysis; (2) those with adhesions that exert a horizontal pull on the lesion, since the elevation of the diaphragm is not likely to relieve the tension; and (3) those with lesions in the contralateral lung that may require phrenic paralysis, unless the case is suitable for risking bilateral phrenic paralysis with unilateral pneumothorax.

It is thought by some authorities that thoracoplasty should be done instead of pneumonolysis, since the latter is not an end in itself but merely allows a pneumothorax to create an adequate collapse. This question resolves itself into a study of each individual patient and his particular problems. In some patients, a single pneumonolysis may accomplish as much as a complete thoracoplasty. However, when adhesions promise to be difficult and dangerous to sever, and the prospect from pneumothorax itself is uncertain, thoracoplasty is the preferable operation, provided there are no progressive lesions in the contralateral lung (Anderson and Alexander<sup>10</sup>).

Matson<sup>4</sup> has summarized the indications for operation as follows: first, unsatisfactory pneumothorax on account of adhesions that appear suitable for safe division; second, satisfactory pneumothorax followed by the formation of organized adhesions which cause early expansion of the lung before the pneumothorax has had time to promote healing of the cavity; and third, satisfactory pneumothorax in which adhesions are present but high pressure is necessary to maintain adequate collapse. In the last instance, there is not only constant danger of rupture of a cavity but the maintenance of high pressure often causes distressing symptoms from mediastinal bulging, misplacement of the heart and lungs, phrenic dyspnea, and coughing paroxysms.

Provided the indications for pneumothorax exist and adhesions offer an obstacle to the success of this treatment, the contraindications for intrapleural pneumonolysis are relatively few. The operation should never be attempted when there is an acute febrile effu-

sion, either serous or purulent, although the chronic effusions in patients without fever offer no serious contraindication. Matson,<sup>4,17</sup> however, has pointed out that a profuse purulent exudate interferes seriously with the identification and the structure of adhesions under thorascopic observation. An exudate in patients with normal temperatures, while not considered a contraindication, certainly increases the risk of a postoperative pleurocutaneous fistula (Moore<sup>3</sup>). For this reason, many operators aspirate all fluid before attempting pneumonolysis. The presence of a moderately diseased contralateral lung is no contraindication provided an adequate pneumothorax in the lung with adhesions promises some hope for successful control of the disease. In most instances, the finding of tubercles on the pleura by thorascopic examination contraindicates a continuation of the pneumonolysis because of the danger of provoking a widespread tuberculous empyema (Anderson and Alexander<sup>10</sup>). Finally, a pneumonolysis should never be done unless the operation, followed by pneumothorax, offers the patient a better chance of recovery than any other form of collapse therapy.

#### *Operative Procedure*

Relative to operative procedure, only the technic for the single-entry method is considered here since this method is used exclusively by the author. The operating room should be set up for an open intrapleural pneumonolysis in case an excessive hemorrhage should result from the cutting of a large vessel and necessitate the opening of the chest wall to control the bleeding. This complication of the operation is extremely rare, but facilities should be available for any eventuality.

The preparation of the patient is the same as that for any major thoracic operation. The amount of preoperative sedation depends upon the nervous temperament of the patient. A good pneumothorax refill usually precedes the operation. The operator should have in mind the probable position of adhesions from recent stereographs. The location of adhesions determines the point of incision and the patient is placed on his good side in the best position for comfort. One per cent novocaine is used as an anesthetic for the insertion of the canula through the chest

wall. The pneumothorax cavity and adhesions are carefully inspected with the observation telescope. Care is taken to find adhesions of technical importance and to determine by their appearance, if possible, the presence of lung tissue, blood vessels or cavities within them. When there is doubt, particularly with short, broad adhesions having wide pulmonary insertions, conservatism is imperative and certainly questionable adhesions should be approached with caution and timidity. When an adhesion has been selected for division, the observation telescope is removed, the operating telescope and high frequency electrode are inserted and the adhesion is cut slowly and deliberately in order to allow coagulation of tissue and blood vessels before the adhesion is completely divided. Many large adhesions are only incompletely divided by careful coagulation around the edges in order to release as much tension as possible. Cooperation of the patient is essential during the entire procedure in order to avoid movement and coughing when the current is in use. Since the patient usually suffers little pain, speed is not an important consideration. The operator should strive for painstaking care and cautious deliberation rather than a speedy termination of the operation.

#### *Operative and Postoperative Complications*

Operative complications are of both minor and major types. Practically all patients develop a small amount of postoperative subcutaneous emphysema which usually subsides within a few days without serious consequences. A small amount of serous effusion occurs in a large number of patients and usually subsides within two or three weeks. In many cases there may be a slight oozing of blood from the adhesions at the time of cutting, but this is usually of small consequence. Severe hemorrhage from a large vessel, however, may be a dangerous complication, but the newer method of division by electrosurgery has reduced markedly the incidence of this catastrophe. Serious hemorrhage may be almost entirely prevented by careful visualization of structures, attention to anatomic relations, and slow coagulation during the cutting process. In the cases referred to in this paper, one vessel about the size of a

match was accidentally severed which necessitated the opening of the chest wall to stop bleeding. The bleeding was promptly controlled, the offending adhesion was divided by open intrapleural pneumonolysis and the patient suffered no serious after effects. The adhesion in question was not large, and showed no evidence of vascularity, but was in a difficult position for thorough visualization. This complication illustrates the need for the availability of operating room facilities for major chest surgery at an instant's notice. In Drash's<sup>13</sup> large series of 251 cases, two instances of hemorrhage occurred which required open operation for control of hemorrhage.

Moore,<sup>3</sup> in a statistical study of 2,043 case reports in the literature, has shown that hemorrhage occurs in only 1.5 per cent of patients. In this group, there were 16 patients with small hemorrhages and 15 cases of serious hemorrhage with only one fatality. Large and persistent serous exudates occurred in 8.07 per cent of the patients, a few of whom developed tuberculous empyema (2.2 per cent). The latter may be of serious consequences but usually develops only in patients with tubercles on the pleura, and many patients probably would have developed the condition without the operation. According to Head,<sup>18</sup> tuberculous effusions are only twice as frequent following pneumonolysis as in cases of artificial pneumothorax. In Drash's<sup>13</sup> extensive experience with pneumonolysis, serous fluid and tuberculous empyema occurred less frequently than with ordinary pneumothorax.

The most serious postoperative complication in Moore's<sup>3</sup> review was a mixed tuberculous and pyogenic empyema, but fortunately this occurs but rarely (1.8 per cent of all cases reported) and is always due to the perforation of a lung or a cavity. A majority of the fatalities from pneumonolysis are the result of this operative accident and its serious sequelae. In order to lessen the chances of this complication, Maurer<sup>15</sup> recommends dissection and enucleation of adhesions from the thoracic wall rather than simple division at a more central point. I agree with Moore<sup>3</sup> that this procedure represents an outstanding contribution to the technic of the

operation, but unless the operator is especially trained in the procedure, reliance must be placed on conservatism and cautious approach to doubtful adhesions.

Other infrequent complications listed by Moore<sup>3</sup> include pleurocutaneous fistula resulting from pre-existing effusion; re-expansion of lung with loss of pneumothorax; and infrequently, the development of pleural shock, although this is no more frequently encountered following pneumonolysis than after artificial pneumothorax.

#### *Results of the Operation*

The efficacy of pneumonolysis may be evaluated by both the technical and clinical success of the operation. The operation is considered technically successful if the offending adhesions are divided, either partially or completely, but sufficiently to allow the establishment of the desired amount of pneumothorax. Obviously, the operation is not clinically successful unless the subsequent pneumothorax provides not only adequate collapse but also healing of the lesion and control of the disease. Some technically successful operations are clinical failures, but on the other hand, clinical success frequently follows an operation that is only partially technically successful. In a large majority of patients, good technical results and clinical success are closely correlated.

In Moore's<sup>3</sup> review of the cases reported in the literature between 1924-32 inclusive, clinical success was reported in 75.5 per cent of the cases. Only 4.5 per cent of the patients were made worse by the operation, and the mortality rate for the entire group was 1.08 per cent.

An evaluation of the results of pneumonolysis may be obtained by comparing the figures given by Matson<sup>4</sup> of cases of partial pneumothorax without operation with Unverricht's<sup>19</sup> group treated by pneumonolysis. In the former, before pneumonolysis was used, 13 per cent of the patients were cured and in 13 per cent the condition was arrested. In the group treated by pneumonolysis, 61 per cent of the technically successful operative patients were cured, and 32 per cent of the partially technically successful operative patients were cured. Matson<sup>17</sup> states that intrapleural pneumonolysis will convert 70 per cent of all unsuccessful pneu-



mothorax cases into satisfactory clinical successes. Drash's<sup>12</sup> recent report illustrates the brilliant results that may be obtained with the operation. In treating 230 patients by pneumonolysis, he obtained satisfactory collapse in 86.4 per cent of the cases, the sputum changed from positive to negative in 93.5 per cent, and cavities were closed in 78.8 per cent.

The value of intrapleural pneumonolysis may be summarized from the following quotation by Moore<sup>13</sup>: "A study of the results of various operators definitely establishes the operation of closed intrapleural pneumonolysis as being the most valuable adjunct to pneumothorax that we have. Not only will it enhance the brilliant results of artificial pneumothorax, but it will save many patients from the more drastic operation of thoracoplasty."

#### *Other Collapse Measures*

Other surgical measures, such as scalenectomy, oleothorax, multiple intercostal nerve paralysis, and extrapleural pneumonolysis are used in a minority of selected cases, but the indications for their use are beyond the scope of this paper.

Thoracoplasty, however, which involves the excision of ribs to allow permanent collapse of the chest wall, must be mentioned in more detail. It is the most radical and the most dangerous method of collapse therapy. Although it provides the most effective and permanent collapse, it is used only to close a pulmonary cavity that cannot be closed by any other operation. A majority of the patients who are finally submitted to thoracoplasty have usually had one or more preliminary operations that have failed. Frequently the more minor operations are used as a preliminary treatment in preparation for thoracoplasty, so that the patient will be in good condition for the operation. Improvement, however, from the preliminary procedures should not delay the thoracoplasty beyond the optimal time for the operation. Thoracoplasty is much more widely used now than ten years ago, and the mortality rate from the operation is considerably lower (reduced from 30 to 10 per cent). Alexander<sup>1</sup> uses thoracoplasty in 10 per cent of the adult cases of pulmonary tuberculosis. Frequently, to patients with extensive

cavernous lesions that have resisted all other types of therapy, thoracoplasty offers the only means of avoiding a certain death. The chances for death in such patients are far greater without the operation than with it. Alexander<sup>1</sup> has summed up the situation as follows: "The many factors demanding individualization in the selection of patients for thoracoplasty make impractical the presentation of a list of categorical indications and contraindications that can be safely followed. In general, however, thoracoplasty is chosen for those patients who are at least in fairly good general condition, who have not had a recent exacerbation of their tuberculosis, whose cardiac and respiratory functional reserves are adequate, whose cavernous lesions are moderately advanced or far advanced, predominately unilateral and predominantly productive in character, and in whom pneumothorax and any other suitable operations have already been tried. Thoracoplasty should rarely be used for noncavernous lesions. Fresh or actively progressive tuberculous lesions in the less extensively diseased of the two lungs or in other organs, low vital capacity and dyspnea, tuberculous tracheobronchitis, amyloid disease and myocardial degeneration are important contraindications to thoracoplasty."

#### *Conclusions*

In conclusion, collapse therapy in some form should be used in a large majority of patients with tuberculosis. The simpler types such as phrenic paralysis or pneumothorax should be attempted before more radical procedures are instituted and are more effective when applied early in the disease.

Pneumonolysis has found a definite place in collapse therapy and greatly enhances the clinical success of artificial pneumothorax. It is preceded and followed by pneumothorax; it is considered merely a means of rendering pneumothorax effective; and it is, therefore, merely an incident in the continuous collapse therapy by air injection.

Thoracoplasty and other more dangerous surgical methods are used as a rule, only when others have been tried and have failed to produce clinical cure of the tuberculous patient.

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## ARTHRITIS: TREATMENT BY HYPERPYREXIA

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In previous papers<sup>1,2,3</sup> we have discussed the history of therapeutic fever, the various methods of its production, and its application to the treatment of disease. We will discuss today the application of hyperpyrexia to the treatment of arthritis only.

All of our treatments have been given in the office, as described in former papers.<sup>1,2,3</sup> A cabinet type of machine has been used, in which the heat is produced by an infra-red burner, and water in a container over the burner is vaporized and saturates the air in the cabinet. The patient lies nude in the cabinet, and this absence of restriction on the body lessens the nervous reaction caused by the rise in temperature. A trained attendant is present at all times.

During the treatment, there is a marked loss of water and chlorides by sweating. This loss, if not compensated for, causes marked restlessness, nervousness, weakness, and at

times delirium. Replacement of water and chlorides is best accomplished by the oral administration during treatment of large quantities of cold normal saline. If it becomes necessary to control nervousness or restlessness, the proper amounts of hypnotics are administered to the patient, and at times codeine, dilaudid, or pantapone are administered hypodermically.

A review of recent publications on the use of fever therapy in the treatment of arthritis indicates that it is being rapidly narrowed to cases of gonorrheal arthritis alone.<sup>4,5,6,7,8,9,10,11</sup> During the last two and a half years there have been published many articles on the treatment of gonorrheal arthritis, but atrophic arthritis and hypertrophic arthritis have seldom been mentioned. Simmons<sup>12</sup> reported 82 cases of atrophic arthritis treated by hyperpyrexia in conjunction with other methods, with 78 per cent good results. He states that hyperpyrexia is useful in the treatment of hypertrophic arthritis only if there be a traumatic or an infectious element involved.

Stetcher and Solomon<sup>13</sup> treated 20 cases of acute infectious arthritis by hyperpyrexia, and reported 60 per cent of these cases completely relieved of all symptoms, and 40 per cent partially relieved.

Neymann<sup>14</sup> advises against the use of hyperpyrexia in the treatment of hypertrophic arthritis, because of the risk involved, but says that these patients might tolerate shorter treatments of lower temperatures than those given other cases of arthritis.

In the treatment of gonorrheal arthritis, all authors advise that the temperature (rectal) be raised to 106° or higher, and that the duration of treatments be from five to seven to ten hours. They gave two to eight treatments at intervals of two to seven days, with a total of 6 to 61 hours of sustained fever.

In the treatment of atrophic arthritis, the above-mentioned authors used a temperature of 104° to 105° (rectal), a duration of 4 to 5 hours of sustained fever, 3 to 8 treatments per case, and a total of 12 to 40 hours of sustained fever.

Neymann<sup>14</sup> has collected the reports of various authors on the treatment of atrophic and of gonorrheal arthritis. Chart I shows the results.

### CHART I

*Reports in Literature on Arthritis Treated by  
Hyperpyrexia*

(From Neymann, C. A.: Artificial Fever, 1938)

	Chronic Atrophic	Gonococcic
Number of Observers . . . . .	14	12
Total Number of Cases . . . . .	384	590
	Per Cent	Per Cent
Relieved . . . . .	11	79
Much Improved . . . . .	24	..
Moderately Improved . . . . .	..	5
Slightly Improved . . . . .	28	..
Not Improved . . . . .	37	16

CHART II

Arthritis—Treatment by Hyperpyrexia

Type	Total No. Treatments	Largest No. Smallest No.	
		Treatments to One Case	Treatments to One Case
Atrophic . . . . . (Infectious)	955	89	1
Hypertrophic . . . . .	1529	184	1
Mixed Type . . . . . (Atrophic and Hypertrophic)	527	51	1
Gonococcic . . . . .	278	34	1
Hyperthyroid . . . . .	18	12	6
TOTAL . . . . .	3307		

tions *Gonococcic*, *Atrophic (infectious)*, *Hypertrophic*, and *Mixed Type (atrophic and hypertrophic)* of arthritis are used in the generally accepted sense, and the diagnoses were made from the history, physical examination, x-ray and laboratory findings. The two cases of hyperthyroid arthritis occurred in patients with hyperthyroidism, and no other cause for their arthritis could be demonstrated.

The youngest patient treated was 5 years of age, the oldest 85 years of age.

The heading *Cases Relieved* refers to patients who had complete relief from their joint pain. *Cases Improved* refers to patients who have been relieved to a marked degree, who have had much less pain, less stiffness of joints, and who are better able to carry on their usual activities than before treatment.

In cases of gonorrheal arthritis, the temperatures were raised to 105.5°-106.5° (oral); treatments were given at intervals of 3 to 5 days. The duration of treatments was from 2 to 5 hours, and the average duration of sustained temperature was 1½ to 4 hours.

In the other types of arthritis, the average temperature varied from 101° (oral) in some of the older patients to 105.5° (oral) in others, and the duration of sustained temperature varied from ½ hour to 2

CHART III

Arthritis—Joint Involvement  
Extremities

Type	Upper	Lower	Spine	Sacro-Iliac	Multiple
Atrophic (Infectious) . . . . .	12	17	5	0	37
Hypertrophic . . . . .	10	11	23	55	29
Mixed Type (Atrophic and Hypertrophic) . . . . .	3	3	2	0	30
Gonococcic . . . . .	10	7	0	0	8
Hyperthyroid . . . . .	2	0	0	0	0
TOTAL . . . . .	37	38	30	55	104

CHART IV

Age Range in Years

Type	5-20	20-30	30-40	40-50	50-60	60-70	70-85
Atrophic (Infectious) . . . . .	1	19	14	18	13	5	1
Hypertrophic . . . . .	2	13	33	40	25	14	1
Mixed Type (Atrophic and Hypertrophic) . . . . .	1	4	4	12	7	8	2
Gonococcic . . . . .	0	13	7	4	0	0	1
Hyperthyroid . . . . .	0	2	0	0	0	0	0
TOTAL . . . . .	4	51	58	74	45	27	5

CHART V

Sex Distribution

Type	Male	Female	Total
Atrophic (Infectious) . . . . .	27	44	71
Hypertrophic . . . . .	66	62	128
Mixed Type (Atrophic and Hypertrophic) . . . . .	14	24	38
Gonococcic . . . . .	21	4	2
Hyperthyroid . . . . .	0	2	2
TOTAL . . . . .	128	136	264

Since February, 1933, we have treated 264 cases of arthritis by hyperpyrexia. Charts II, III, IV, V, VI, and VII show an analysis of these cases. The designa-

hours; length of treatments, 1 hour to 2½ hours.

Our method of treatment has differed from that of others, mainly in that we have used shorter periods of sustained temperature and a larger number of treatments. Results show that hyperpyrexia can be used successfully in this manner, that this method of treatment is curative in a percentage of cases of arthritis, and that it is a desirable adjunct to other treatment in those cases that are not relieved by its use alone.

Some of our cases showed improvement following the first one or two treatments, and were rapidly relieved of their symptoms. In other cases, the symptoms were increased by the first three to six treatments, but



## THE PRESIDENT'S PAGE

### THE WAGNER OR NATIONAL HEALTH BILL

On February 28, 1939, Senator Robert F. Wagner, a German-born citizen of New York, introduced into the Senate of the United States Senate Bill No. 1620, which he designated as the above measure. He wrote into the Bill all of the provisions necessary to completely socialize the practice of medicine, and no doubt to satisfy job-seekers and those who are always desirous of rendering service to others, provided a measurable part of the benefits redounds to themselves.

In executive session the House of Delegates of the American Medical Association considered the subject after an able reference committee had submitted a comprehensive report on the Bill. A motion to adopt this report was carried by unanimous vote. By this vote the House of Delegates did not reverse its previous action, but again approved of those recommendations of the National Health Conference which it deemed compatible with the policies of the Association, and pointed out the objectionable features against which we have so long and vigorously fought.

The American Medical Association, recognizing the political trend toward the left, has cautiously, from time to time, broadened its policies so as to include every measure which would safely expand medical services in order to give the greatest measure of benefit to those needing medical care. But it will not be coerced into approving the dangerous provisions of this un-American Bill.

Notwithstanding the fact that the Administration was informed as to our recommendations and opinions of the National Health Program, the Wagner Bill completely ignored all that we had done. We had previously approved of expansion of public health, maternal and child health service, improved diagnostic, therapeutic and hospital services, as well as care of the indigent and development of medical specialists. Sickness insurance as conducted under private management is a recognized institution, but that to be supported by taxation was disapproved. Unqualified disapproval of compulsory medical care for every individual was registered.

It was our opinion that we had met all reasonable criticism by adopting this liberal program. However, the Wagner Bill did not recognize either the spirit or the purpose of our resolutions, and was designed to completely regiment and nationalize medicine.

The Wagner Bill does not in any way safeguard the existence of private practitioners, nor does it take cognizance of the many empty hospital beds now existing and available for use. It is in opposition to what are considered fundamental principles of medical care and the best interests of the public. And it fails to note the great contributions made to public health by a free medical profession. Therefore, the American Medical Association feels that duty impels it to voice its strong opposition to it. It is a direct threat to the welfare of the public as well as to a free medical profession.

Complete control by the government is the objective to be attained by this measure, and the "grants-in-aid" which are offered as bait or inducement to states to embark upon orgies of extravagance are frequently initiated by representatives of the Federal government. And acceptance of these subsidies has invariably led to Federal control.

The House of Delegates reaffirmed its opposition to all such schemes, and set forth its readiness to cooperate along any line that promises to be for the benefit of the public. It has shown by its action on several occasions that it is ready and anxious to render every possible assistance to the indigent and low income group, but it will not agree to schemes for lowering the quality of medical service, or destroying the standing and morale of the medical profession.

For years the health of the people of the United States, as measured by sickness and death rates, has been better than that of most foreign countries. The fortunate health conditions in this country cannot be disassociated from the standards and methods of medical practice that have prevailed under the present system of medical practice.

Every member of the profession should use all influence to defeat this measure. Write to your Senator and Congressman today.

WM. H. MYERS, M.D.

**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JUNE, 1939

**STATES' RIGHTS**

States came into existence early in the history of this country, simply because the various colonies of people recognized the need for more concerted action in handling some of their governmental problems. Then came the time when the several states saw the need of uniting to form the United States of America, this necessity being the defense of a new nation without a name, a nation occupied by people whose minds and bodies sought freedom of speech, the right to worship whom-ever they pleased, and the right to earn a living without too much interference by government.

But with the formation of the new nation, the fathers of the United States of America did not forget states' rights. They knew, and we should know, that conditions vary in different states, and that conditions and needs are not the same in all sections of any state. They recognized, and we should take cognizance of their wisdom, that most problems must be solved by the very people who are confronted with such problems. For example, if the people of a community want a hospital, they can—without interference by the Federal Government—plan, finance and build such an institution. Another community may need a school, a swimming pool or some other public facility. It, too, can make similar plans. The rights of states and of their respective counties, townships, towns and cities are broad. The Federal Government is a creature of the several states.

The "New Deal" philosophy of government has changed somewhat the simple principles of government promulgated by the early settlers of North America. During the past few years the Federal Government has sponsored a program which has caused many people of this country to forget their responsibility in local affairs; too many of our people are looking to Washington, D. C., for the solution of their problems. States' offi-

cials are perhaps more guilty of this encroachment upon our American form of government than are the combined forces from other sources. Some of these officials have actually broken down what has been dear to the hearts of their people all of these years—States' Rights—in their efforts to obtain Federal funds for projects which would enhance their political prestige.

Certain members of the medical profession are no exception to the rule when Federal aid is discussed; indeed, there are a few physicians who believe the Federal Government should enter the field of the practice of medicine. These men and women should inform themselves regarding the Government's plans. They should write to their senators and congressmen for information. Such data probably will show them that their rights as individuals will be hampered, and that states' rights would be swallowed up in the medical program proposed by the socialistic-minded persons whose interests appear to be selfish.

**ARE DOCTORS GOOD CITIZENS?**

Are physicians good citizens? This is a rather blunt question, but one that I believe to be important. Most of us are so engulfed in the practice of medicine that we are apt to neglect our duties as citizens, yet in our respective communities we are often referred to as outstanding citizens. It seems pertinent for someone to call attention to our shortcomings in this respect and, after several years' service on a committee that deals with legislation and legislators, I deem this a duty, though unpleasant it may be.

The legislator is seldom conversant with the plans, aims and purposes of THE MEDICAL ASSOCIATION OF GEORGIA. So I ask, is it the fault of the officials of the Medical Association of Georgia? No, I don't believe so, for to my knowledge every member of the Medical Association of Georgia for the past few years should have been cognizant of our problems, for through the pages of *The Journal* of the Association, by correspondence and word of mouth, every member in the State has been informed. Being informed, is not it your imperative duty to at least have an interview with your senator and representative?

It has been the experience of those of us working on legislative problems that when a senator or representative had full information on the matter presented, and this came from his family doctor or some other physician or group of physicians in his community, it was an easy task to obtain support for the measure. By this process of reasoning, then, many of our legislative bills have been lost because of ignorance or indifference regarding the subject under discussion. Then why the ignorance? Is it because our profession is not enlightened as a whole, or it is because of our gross negligence as citizens? Do you register and vote? Do you take an interest in other civic affairs that pertain to the health of our people, or do you leave this arduous task to uninformed laymen? It is true that the health of the citizenry is primarily the responsibility of physicians. May I ask, are you assuming the full responsibility that is yours?

Many of our health problems are legislative in their nature, therefore it falls on you to become a citizen, at least for moments in your life, and inform the members of the Legislature in your community about the various activities of the Medical Association of Georgia. I sincerely believe that when this is done that our legislative aims will have been largely accomplished.

May I suggest that each County Medical Society and its Woman's Auxiliary have at least one joint meeting a year to which are invited the members of the Legislature in your county and district. At this meeting a frank discussion should take place, and if this is done all will be well for the protection of the health of the people. If you fail in your obligation to the public, and to yourself, you have not served the full purpose of your existence. Wake up fellows, let's be better citizens!

CARL C. AVEN, M.D.

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Southeast Georgia's current fight against syphilis in Negroes receives national attention in a recent issue of *Collier's* written by Walter Davenport, associate editor. This work has been directed by Dr. M. E. Winchester, Brunswick. Dr. Davenport made a trip through Camden, Glynn and McIntosh counties in Dr. Winchester's traveling trailer clinic, known as the "Bad-Blood Wagon," and writes an enthusiastic report of the progress being made.

## DRUGS USEFUL IN THE TREATMENT OF HEART DISEASE

When heart disease is mentioned the average physician reflexly thinks of digitalis. This is at it should be, because digitalis is the most useful drug yet discovered in the treatment of the failing heart. Digitalis has stood the test of more than a century and a half of widespread use since William Withering's original contribution, a little book still well worth reading. A first edition of this work is worth around \$600, but it is reproduced in part in Louis H. Roddis' "William Withering" (Paul B. Hoeber, Publisher) and in Drew Luten's "The Clinical Use of Digitalis" (Charles C. Thomas, Publisher) both of which books may be secured for about 1 per cent of the cost of a first edition.

Withering described the indications for digitalis, the dosage of the drug and its toxic manifestations just about as well as has ever been done. He did not grasp the way digitalis acts as scientifically as some investigators profess to do today, and he did not realize that once a patient has been brought out of congestive failure with digitalis, it is safest to keep him on a maintenance dose to forestall recurrences. However, modern authorities have returned after many generations to the use of the powdered whole leaf as Dr. Withering prescribed so long ago. Suffice it to say now that the indication, and the only indication, for the use of digitalis is congestive heart failure and that the optimal maintenance dosage in the individual case can only be determined by the method of trial and error.

Probably no physician today confines himself in the treatment of heart disease to digitalis. We cannot take up here the importance of rest for the cardiac patient except to say that opiates occasionally and sedatives often are indispensable in securing rest.

Drugs are valuable in the control of edema. Sometimes in spite of digitalis, edema accumulates to so great an extent as to cause mechanical embarrassment of the heart. The first measure in controlling the edema is to order more rest and to limit the intake of fluid and salt. If these measures are not successful one resorts to the mercurial diuretics. Novasurol, the first of these, has been practically superseded by salyrgan. Salyrgan is



best administered intravenously. If the drug gets out into the subcutaneous tissues to any extent it will cause a slough which will be very slow to heal. Moreover, particularly in negro patients, the repeated use of salyrgan in the same vein often results in its obliteration. For these reasons the practice of diluting the drug with sterile distilled water has been introduced. We have a notion that it works even better when diluted with a 10 c.c. solution of 4 grains of aminophylline.

When the mercurial diuretics were first introduced there were many contraindications announced: most of these have faded away. The most conservative physicians today begin with 0.5 c.c. and never give more than 1 c.c. twice a week. Others give 2 c.c. at a time and sometimes even 4 c.c. every second day.

To enhance the efficiency of salyrgan, in 1924 Keith of the Mayo Clinic introduced the additional use of ammonium chloride by mouth. After trying out a number of salts in extensive clinical experimentation, he decided on potassium nitrate as the best. Six or eight grams of this daily has proven of real value (Eli Lilly puts up this salt in enteric-coated pills of 0.5 Gm.).

In handling a case of coronary disease before thrombosis, unquestionably the most important thing is general regulation of the patient. His activities should be restricted so that he stops before an anginal seizure, he should be forbidden to take prolonged exercise even though not very strenuous, and he should avoid excitement such as football games, and strong emotion, especially anger. If he is obese, his excess weight should be gradually reduced if only to lessen the load on the heart. A theory emphasized at the March meeting of the American College of Physicians, and one which appears to have considerable foundation, is that changes in the intima of the coronaries are due to too much fat in the blood stream. This is an additional reason for keeping the weight down.

The purine bases have been highly recommended as useful and unequivocally condemned as useless in the treatment of coronary disease. While their value has not been established, there are considerable clinical data in favor of them and no evidence that they are harmful: some cardiologists therefore

routinely prescribe aminophylline in such cases. A tablet of nitroglycerin beneath the tongue will usually give instant relief, but its effect is rather transitory. One may indeed wonder if rest alone is not sufficient to give prompt relief in most anginal attacks. Mild sedatives seem to be valuable in decreasing the frequency of the attacks. Thomas Lewis recommends a glass of brandy each evening, partly because liquor has a sedative effect and produces a sense of well-being, partly because alcohol is a vasodilator.

If a patient who has suffered thrombosis of a coronary artery is still breathing when the doctor arrives, the most important thing for the doctor to do is to make him comfortable. Morphine is the first drug to think of. Recalling that pain is the best antidote for morphine and the pain of coronary occlusion is usually extreme, the administration of one-half grain of morphine immediately and one-quarter grain at intervals of half an hour until pain is relieved has been advocated. This plan has recently been severely criticized. Morphine in such doses depresses respiration, sometimes perhaps even fatally. Then to in a surprisingly large number of patients morphine increases nausea and vomiting. Willius advises that, if a quarter grain of morphine does not allay pain in half an hour, an ounce of whiskey should be given. Papaverine hydrochloride (one-half grain) has been logically suggested for its antispasmodic effect. Aminophylline intravenously (4 grains in 10 c.c. of distilled water, or even twice that) has been said to relieve the pain more quickly than anything else.

Once the pain has been relieved the most important thing in the treatment of a patient with coronary thrombosis is to keep him at absolute rest for at least six weeks, more often eight. At first the patient should not even be allowed to feed himself. The room should be kept quiet, visitors restricted to those who are cheerful and who won't stay long. He should not be allowed to worry about anything. After a couple of months he is allowed to sit up for a short time and in a few weeks to walk around the house. Some four to six months after the infarction, many men are able to resume their occupations but they should always take a short rest after

lunch and should keep in constant touch with their doctor. Following thrombosis if signs of congestive failure appear digitalis should be used cautiously. Many authors, however, feel that digitalis is not good for such a badly damaged heart and that it should not be exhibited if it can possibly be avoided. Certainly digitalis should not be used here, or anywhere else, unless it is needed. In other respects, once a man is allowed out of bed following a thrombosis he should be treated just as already described for the anginal patient.

Let us review again from a somewhat different angle the drugs used in the treatment of heart disease:

1. Digitalis remains the sheet anchor. It should be used whenever there are signs of a failing myocardium. Whenever the patient can swallow it is best given orally as the whole leaf powdered. Using it perfunctorily as a sort of last rites for the moribund only serves to discredit the drug.

2. Salyrgan intravenously, preferably diluted, is the most potent diuretic we now possess. The action of salyrgan can be increased by the administration of potassium nitrate, 6 or 8 Gm. (90 to 120 grains) daily in enteric-coated pills. Often a weekly dose of salyrgan will do wonders in improving the night's rest of a cardiac patient even when pulmonary congestion cannot be picked up on physical examination.

3. Morphine in moderate doses to relieve extreme dyspnea or the pain of coronary thrombosis can still be termed "God's own medicine." Papaverine should also prove useful. Often the various sedatives can be well employed to allay nervousness. Chloral hydrate is thought by some to have a bad effect on the heart: the bromides may poison the arteriosclerotic brain and precipitate a psychosis, so the simpler barbiturates seem to be the drugs of choice.

4. Whiskey in small amounts has some effect as a vasodilator and considerable effect in producing euphoria.

5. Nitroglycerine is a prompt vasodilator though it acts but a short time. In the treatment of anginal attacks the usual dosage is glyceryl trinitrate, grain 1/150, placed under the tongue. Its great advantage is that it acts

promptly without the use of a hypodermic, the disadvantage is the short duration of the action. There is no danger in the continuous use of this drug and it is not habit forming.

6. The value of the purine bases (caffeine, theobromine and theophylline) is not proven. Caffeine is a good general stimulant, and a good diuretic: there are data, in considerable dispute it is true, to indicate that caffeine is a good dilator of the coronaries. Some cardiologists therefore encourage their patients to drink as much coffee as they can without too great stimulation and resultant sleeplessness. Straight theobromine (sometimes in a capsule with soda) is the choice of some physicians. Others prefer theobromine sodium acetate (also sold as agurin). Theophylline, also marked as theocin, is widely used.

The most popular drug of the purine group is aminophylline, a mixture of theophylline and ethylenediamine (the latter compound increases the solubility of the theophylline). Many pharmaceutical houses offer aminophylline: those of Bischoff, Dubin, Lederle, Pharmedic and Searle have been accepted by the Council on Pharmacy and Chemistry. Aminophylline is prepared as a tablet to be given by mouth, as a 2 c.c. ampule for intramuscular use and as a 10 c.c. ampule for intravenous use. In spite of Harry Gold's recent paper, this writer is convinced that aminophylline intravenously is beneficial: at least he has repeatedly proved that so given it will cause the patient to grow pink and to complain of warmth, and sometimes to sweat; it will also relieve Cheyne-Stokes respiration and thus improve sleep.

Certainly the purines have been proved to have some diuretic action, but this effect is far less than that of the mercurials.

There are on the market many, many preparations of theobromine or aminophylline combined with a mild sedative. The Council has accepted none of them, believing that the physician should decide the amount of the vasodilator and the amount of the sedative for each patient individually.

7. Quinidine decreases the irritability of the heart muscle and thus is of value in the control of auricular fibrillation. It should not be used for this however until the patient is thoroughly digitalized. It is a toxic drug

and not one to be used lightly. It has been suggested for routine use after coronary thrombosis to prevent ventricular fibrillation, but this suggestion has not been widely accepted. In the writer's experience, quinidine has proved most valuable in the control of frequent attacks of paroxysmal auricular fibrillation.

8. Barium chloride, epinephrine and ephedrine are among the many drugs that have been brought forward for the control of Stokes-Adams seizures. Since such seizures usually result because coronary diseases prevents an adequate blood supply to the conduction bundle, aminophylline has been used in more than one case and the patients have improved.

9. Metrazol, recently accepted by the Council, is a good stimulant which acts promptly but one that is not without its drawbacks. Coramine, not accepted, has been widely used the last few years in Georgia. Except as a respiratory stimulant, its value does not seem to have been proved.

Nineteen hundred years ago St. Peter exhorted, "Be ready with a reason for the faith that is in you." In prescribing a drug for a cardiac patient we modern physicians should also be ready with a reason for the faith that we have in that drug, and this faith should be based on something sounder than the detail man's sales talk.

L. MINOR BLACKFORD, M.D.

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*Savannah*

*April 23, 24, 25, 26, 1940*

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Mr. President, Members of the House of Delegates, and Ladies of the Auxiliary:

It is with pleasure that I bring to you this evening the Fifteenth Annual Report of the Woman's Auxiliary to the Medical Association of Georgia.

The Auxiliary is guided by an Advisory Committee composed of five members of the State Medical Association. This committee, the Executive Board of the Auxiliary and the President of the Medical Association met in Savannah last July. At that time the Auxiliary program for the year 1938-1939 was presented and approved.

Copies of the program were mailed to all members of the Auxiliary, and to officers of the Southern and American Medical Auxiliaries. The program was also published in the State Medical Journal and in The Atlanta Constitution.

All county and district Auxiliaries have secured an Advisory Committee, or Councilor, from the local medical societies, to be guided by them in all activities.

More than ever before members are being urged to accept chairmanships of Health and Welfare in lay organizations. One hundred thirty-two Auxiliary members hold chairmanships of Health in various organizations (this is approximately one-third of our entire membership).

Sixty-two Public Relations programs have been prepared and presented by Auxiliary members. A few small cash contributions have been made to this fund.

Fourteen Radio Health talks have been sponsored by county Auxiliaries. Over 18,000 copies of Health Literature, approved by

the Medical Association and State Board of Health have been distributed by the Auxiliary. These have covered about 20 different health subjects, such as cancer, typhus fever, prenatal care, child psychology, venereal disease, colds, infantile paralysis, tuberculosis, diet, health education, etc. Doctor's Day was celebrated March 30 (it was this day 97 years ago that ether anesthesia was first administered by the famous Georgian, Crawford W. Long). Mrs. Bruce Schaefer, of Toccoa, as State Chairman of this committee, paid a beautiful tribute to Dr. Long and to doctors in general, on Doctor's Day, over WSB. Many of the county Auxiliaries used originality in paying homage to their local physicians; some of the ways were: banquets, dinners, steak suppers, barbecues, picnics, card parties, dances, radio talks, books (honoring the physician) were given public libraries; many articles were printed in the various State papers; personal notes of appreciation were written; flowers were sent doctors' offices; cards and flowers were sent physicians who were ill; and over the entire State flowers were placed on the graves of deceased physicians.

Contributions (amounting to \$23.00) have been made to the Health Film Fund. These films are furnished free of charge to any Auxiliary requesting them; over 21 films have been shown. One film alone was shown to more than 1,000 children.

The Student Loan Fund, which provides financial aid to members of physicians' families, who desire to study medicine, now amounts to \$1,367.00, of which \$230.75 has been contributed this year.

Two hundred two subscriptions to Hygeia (the health magazine edited by the American Medical Association) have been secured by members of the Auxiliary. Two of our



counties have received national recognition in the contest conducted last year; Bulloch-Chandler-Evans and Baldwin. (Baldwin with a membership of 21 sent in 65 subscriptions.)

Jane Todd Crawford Memorial programs were given in many counties. An interesting dramatization of the first oviarotomy, performed by Dr. Ephriam McDowell, was mailed to all county presidents, by the State chairman.

Auxiliary members take keen pleasure in aiding the Medical Association socially, whenever their services are needed. A few of the ways in which the members have aided last year have been: assisting in the entertainment of State, district and county medical meetings; rendering help to various hospitals when "Hospital Day" was celebrated; by sponsoring the "President's Ball" (poliomyelitis drive), etc.

Of a philanthropic nature the Auxiliary members have, during the past year, sponsored the sale of Christmas Seals (tuberculosis campaign), baby clinics, dental clinics, typhoid and diphtheria immunization clinics. In one county the Auxiliary furnishes a room in a pediatric ward; another maintains a bed at the tuberculosis sanatorium. Pantry showers and birthday parties are given inmates of these institutions; another has sent food and clothing on Thanksgiving and Christmas to a ward at a veterans' hospital; the Auxiliary members have aided in the Summer Round-Up of pre-school children; assisted with the Medical Exhibit at the State Fair; participated in "Woman's Day"; in one locality the Auxiliary protested the repeal of the pasteurization law; Auxiliary members have aided, almost 100 per cent, in the cancer control program. They have sponsored May Day Clinics in schools, Social Hygiene Day, Adult Health Education Conference and have held chairmanships in the American Red Cross.

The Auxiliary has capable chairmen who are keeping an accurate history of the Auxiliary; a Scrap Book of its undertakings; and is compiling most interesting and useful data in the "Research in the Romance of Medicine."

A silver loving cup donated by Mrs. James N. Brawner, first president of the Auxiliary, will be presented for the first time at this convention, to the county Auxiliary showing the highest rating based on credits approved by the State Auxiliary. This trophy has served to stimulate interest and all are eagerly anticipating its presentation Thursday evening at the joint banquet of the Medical Association and the Woman's Auxiliary.

The President of the Auxiliary has during the past year written 755 letters, 275 cards; has made fifteen visits, and the same number of talks, in the interest of the Auxiliary. She has contributed articles to the Atlanta Constitution, to the State Medical Journal, to the News Letter edited by the A.M.A.; has compiled a complete directory of Auxiliary members and had same published in the State Medical Journal. Formal reports have been made to the State Auxiliary, Southern Medical Auxiliary and American Medical Auxiliary.

The President and the President-elect attended the S.M.A., in Oklahoma City, last November and made the report from Georgia. On this, the 15th anniversary of the Auxiliary, pins are being presented all past presidents (the presidents and the Auxiliary sharing the expense).

The State chairman of legislation has kept county and district legislative chairmen posted on current matters pertaining to the medical profession. Letters were written all Auxiliary members asking that they solicit their legislators' support in the passage of the Basic Science Law; the proposed amendment that counties be allowed to render financial aid to their indigent sick, and other legislative matters.

Georgia has eight District Auxiliaries; 24 County Auxiliaries, 15 members-at-large (53 counties are represented). Under the direction of the President-elect, Mrs. Eustace A. Allen, who serves as Chairman of Organization, the Auxiliary has increased its membership. With a membership of 436 a year ago we are happy to report 519 today. Five hundred nineteen doctors' wives, thoroughly organized, devoted to the medical profession, who stand as a reserve army ready to do the bidding, any time and in any way, that you,

the Medical Association of Georgia, deem fit to ask. The Auxiliary is indebted to the Medical Association for pages in the Medical Journal, and for the printing of our State Convention programs.

I wish to take this opportunity to thank your President, Dr. Coker; your President-elect, Dr. Myers; your Secretary-Treasurer, Dr. Shanks; Dr. Brawner and other members of the Advisory Committee; and Dr. Abercrombie and Miss Fannie Shaw of the State Board of Health, for their splendid cooperation and assistance during the year. To serve them, and each of you, members of the State Medical Association, has been a distinct privilege and a decided pleasure.

Respectfully submitted,

MRS. WARREN A. COLEMAN.

April 25, 1939.

#### ANNUAL REPORT OF THE PRESIDENT

Madam Chairman; Members of the Auxiliary, and Guests:

Before the House of Delegates of the Medical Association of Georgia, now in session, I have made a report of the work done by the Auxiliary for the fiscal year 1938-1939. It was a summary of the reports made to this body yesterday and today by different chairmen and officers, so to avoid repetition my report will be confined to my activities.

Post-Board Meeting was called in April, 1938, in Augusta, at which time delegates to the American Medical and Southern Medical Auxiliaries were appointed. State chairmen of standing committees, corresponding secretary, and parliamentarian were also appointed; district chairmen, previously appointed by the district managers, were announced by the chair.

The Advisory Committee from the Medical Association of Georgia met with the Executive Board of the Auxiliary in Savannah July 1938, at which time the Auxiliary program for 1938-1939 was presented and approved. Subsequently five hundred copies were printed and mailed to each Auxiliary member in the State. Copies were also sent to the American and Southern Auxiliary officers. Stationery was printed and mailed to all officers, chairmen and district managers.

Early in the year a committee composed

of the President of the Auxiliary, President-elect, and First Vice-President met in Atlanta, with Miss Fannie Shaw, Health Education Director with the State Board of Health, to decide upon Health Education material to be distributed during the year.

It was your President's privilege to attend the Southern Medical Auxiliary in Oklahoma City last November and to make the report from Georgia's Auxiliary.

The directory of the membership of the Auxiliary was prepared and printed in the State Medical Journal.

Articles were written for the Journal of the Medical Association of Georgia, for the Atlanta Constitution and for the "News Letter," edited by the American Medical Auxiliary.

A mid-year letter, to all county presidents was mailed in February.

During the year I have written 755 letters, 275 cards, many telegrams, and have made many telephone calls.

I have attended seven district meetings; have made fifteen trips, and the same number of talks in the interest of the Auxiliary.

In preparation for our convention mimeographed questionnaires were mailed to all county presidents and district managers; credential cards were mailed all members of the Executive Board and county delegates.

In January I met with the President of the Fulton County Auxiliary and, with the aid of her committee, prepared the program for our convention; a copy was sent to the Secretary of the State Medical Association for publication.

It was my pleasure to meet Mrs. Chas. C. Tomlinson, our National Auxiliary President, in Atlanta, early this month, and to hear her speak on Auxiliary activities.

The Pre-Convention Board meeting has been held and was splendidly attended.

I was happy to be able to assemble together so many outstanding Auxiliary members this morning for our first "Past Presidents' Breakfast." It is my sincere wish that this will become an annual event.

I am deeply grateful to Mrs. James N. Brawner, first president of the Auxiliary, for the donation of the loving cup. It has definitely stimulated interest in all county auxiliaries. We are awaiting with keenest inter-

est its presentation for the first time at the joint banquet of the Medical Association and the Auxiliary Thursday evening.

It has been a privilege to serve as your President this year. My deepest appreciation is extended to Dr. Coker, President of the Medical Association; Dr. Myers, President-elect; Dr. Brawner, Chairman of our Advisory Committee; Dr. Shanks, Secretary of the Medical Association; my Executive Board members, and to you members of the Auxiliary, individually, because of you the Auxiliary has made decided progress, because of you, my life has been made richer, fuller and vastly sweeter. I shall forever hold sacred the friendships I have formed this year. For your ready response to my slightest appeal, for your loyal support and unexcelled cooperation I am deeply grateful.

For the privilege of having been the *fifteenth President of the Woman's Auxiliary to the Medical Association of Georgia*—I thank you!

Respectfully submitted,

MRS. WARREN A. COLEMAN.

April 27, 1939.

### THE UNITED STATES PHARMACOPŒIAL CONVENTION\*

*Call for the Convention for the Revision of the Pharmacopœia of the United States of America to be Held at Washington, D. C., Beginning May 14, 1940*

May 1, 1939.

In compliance with the provisions of the Constitution and By-Laws of the United States Pharmacopœial Convention, I hereby invite the several bodies entitled under the Constitution to representation therein to appoint three delegates and three alternates to the Convention for the Revision of the Pharmacopœia of the United States of America, which is to meet in Washington, D. C., on May 14, 1940.

WALTER A. BASTEDO, M.D.,  
President of the United States  
Pharmacopœial Convention.

33 East 68th Street,  
New York City.

THE EDITOR

Dear Sir:

In compliance with the provisions of the Constitution and By-Laws of the United States Pharmacopœial Convention I have today issued a call for the Convention for the Revision of the Pharmacopœia of the

United States of America, to meet in Washington, D. C., on May 14, 1940.

A copy of this call is enclosed, together with a personal letter from the President. The prompt announcement of the Call for the Convention in your Journal will be greatly appreciated as a cooperative service in publicity for the next Pharmacopœial Convention. May I solicit your interest?

Yours very truly,

WALTER A. BASTEDO, M.D.,

President of the United States  
Pharmacopœial Convention.

May 1, 1939

TO THE EDITOR:

Under the Federal Food, Drug, and Cosmetic Act the standards of strength, quality and purity laid down in the Pharmacopœia for the drugs and preparations that it recognizes become the legal standards for such drugs and preparations. As a consequence the manufacturer, the dispensing pharmacist and the physician have a common interest in the Pharmacopœia. The manufacturer is enabled to furnish the pharmacist with officially standardized materials, the pharmacist to dispense, with exactitude, just what the physician desires, and the physician to write his prescriptions in simple terms with confidence in what the pharmacist will dispense. Without the Pharmacopœia there would be chaos. Without confidence in its sponsors the situation would be perilous.

The Convention for the Revision of the Pharmacopœia decides the principles under which the Pharmacopœia is to undergo revision. It also elects the Officers of the Convention, a Board of Trustees to manage administrative, legal and financial matters, and a Committee of Revision, all to serve until the next Revision Convention meets.

The Committee of Revision is composed of fifty elected members. Seventeen of these are doctors of medicine, representatives of clinical medicine, pharmacology, serology, therapeutics, etc. The other thirty-three members belong to Pharmacy and the allied sciences, and include representatives of dispensing and manufacturing pharmacy, inorganic and organic chemistry, botany, pharmacognosy, biological assay, etc.

In the past the Committee of Revision has included men of the highest rank in the several fields. That it may continue so to do, it is asked that the various bodies authorized to send delegates to the Convention will appoint their full quota of delegates, and will select these from among those of their own people whom they know to be informed and at the same time prepared to attend the Convention.

Cordially yours,

WALTER A. BASTEDO, M.D.,

May 1, 1939

Pres. of the U.S.P. Convention.

\*The Medical Association of Georgia elected delegates at its last annual session, May 28, 1939 as follows: Dr. Allen H. Bunce, Dr. C. C. Aven and Dr. T. C. Davison, all of Atlanta.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*



# GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

## EXCERPTS FROM THE NARRATIVE AND STATISTICAL REPORT OF THE DIVISION OF TUBERCULOSIS CONTROL FOR THE YEAR 1938 WITH SUMMARY AND TABLES

As predicted in the 1937 report there has not been a continued reduction in the number of deaths from tuberculosis, but the increase is comparatively slight. The comparison follows:

The fact that there was no further decrease of deaths in 1938 may be due to the death of some patients in 1938 who would have died in 1937 had not their lives been prolonged by treatment received during that year under our expanded program. It is believed that there will likely be a decrease of deaths in 1939 although not much further decrease may be expected until many more beds be provided.

During the year 1938, 14,074 x-ray examinations in 219 clinics were made by the field unit and as a result 820 new cases were found. This was 217 more than were found in 1937. This is probably a result of better selection of subjects for clinics, for approximately the same number of examinations were made in 1937 and 1938.

shown, yield a much smaller percentage of positive cases—an average of only 1.63 per cent, or 59 out of 3,618 re-examinations of white and 3.44 per cent, or 28 out of 813 re-examinations of colored patients.

A Table not shown here points out that in counties with health units 72 per cent more cases were known of on December 31, 1938 than in counties served only by a county health nurse and 161 per cent more than in counties served only by district nurses doing general public health work. Another Table lists a number of field activities by local health workers and it is noted that from 58.3 per cent to 95.4 per cent of all of them are in the counties having full time health units. An interesting fact brought out is that during the year an average of 6.8 visits per case of tuberculosis was made in full time health unit counties as against 2.8 visits per patient in county nurse counties and 4.1 visits in district nurse counties. Thus it is indicated that tuberculosis control services are much more extensive in those counties having units operating under the Ellis Health Law.

A survey made by this Division at the end of the year with returns from 154 counties

Year	Number of Deaths				Total	Rate per 100,000 Population		Percentage of Negroes In State Population
	White No.	White %	Colored No.	Colored %		White	Colored	
1937	559	36	990	64	1549	28.5	89.0	50.3
1938	595	37	1007	63	1602	30.0	90.0	51.7

Table I shows the comparatively small number (less than 20 per cent in the white and 10 per cent in the colored race) of cases found in the minimal stage and makes evident the need for the greatest possible effort to find and treat more cases in early stages.

Table II is extremely important and startling as it shows what a small (almost insignificant) percentage of cases were found in examinations of persons (contacts, suspects and tuberculin positive individuals principally) 16 years of age and under as compared with the much larger percentage of cases found in those over 16, and that it required 14 times the effort and cost to find a case of pulmonary tuberculosis in white persons up to the age of 16 as it did in those over 16 years of age. This is the experience of contemporary workers and clearly points to the necessity of directing case finding efforts chiefly to those over 15 in the white race and to those over 13 in the colored. This is true for contacts as well and if there is to be a choice of examining adult contacts over 15 and those up to 15 years of age, the choice should be in favor of the adults. Re-examinations, it can be

resulted in obtaining the names and addresses of destitute tuberculous patients, many of them homeless, as listed below:

	White	Colored	Total
Homeless	168	186	354
Destitute	867	515	1,382

TOTAL 1,035 701 1,736

Adequate provision for their care, not even for food and shelter, has been made, although every possible effort to do so is being exerted by local agencies, and it is impossible with existing facilities to isolate them properly for the protection of members of their families, associates and the general public.

A study of the Sanatorium report for 1938 shows that services there were greatly increased in the last six months of the year (1938) over those of the preceding like period. This gratifying increase came about following administrative changes at the Institution. The results obtained justify the changes which have been made and prove the soundness of the policies adopted by the State Board of Health in its fight against tuberculosis as they apply to the Sanatorium. The present Sanatorium administration insures

continuance of its sympathetic and intelligent cooperation in tuberculosis control. This increased Sanatorium service has made our case finding and consultation service much more effective than it ever was before because it has permitted lung collapse therapy to be used much earlier in many cases than was formerly possible. It should result in some decrease in the annual death rate next year.

During the period September 1, 1937 to December 8, 1938, the Georgia Tuberculosis Association in addition to its other valuable contributions toward tuberculosis control paid to 77 physicians throughout the State fees for pneumothorax refills in 486 indigent cases. This did much in 1937 to lower our death rate and to keep it down in 1938. It is hoped that this assistance can be kept up until it can be properly taken over by the State through its Health or Welfare Department. The cost this would be to the State for 500 patients is estimated at about \$24,000 annually.

nothing could be done without their assistance.

To an extent greater than ever before the need for from two to three institutional beds per annual death from tuberculosis is being emphasized nationally. This means that from 3,000 to 4,500 beds are needed in this State. After the contemplated and contracted projects at Alto are completed, 692 State beds will have been provided. Only 114 of these are for Negroes. It is shown above that there are at least 1,800 indigent tuberculosis patients in the State for whom there are no beds and about 3,000 new cases are being reported annually. At least 200 hospital beds, preferably in an institution or sanatorium built for the purpose, should be provided for Negroes and an additional 2,000 domiciliary beds in cheaply constructed buildings divided as needed among white and Negro patients are required. The latter should not be considered as new or additional expense, but rather as transferring the present burden from local

TABLE I  
YEAR 1938  
CLASSIFICATION OF THE CASES FOUND (SEE TABLE II) ACCORDING TO STAGE IN AGE GROUPS, MALE AND FEMALE COMBINED, SHOWING NUMBERS AND PERCENTAGES

White Age Groups	Up to 16		17-45		46 Up		All Ages	
	No.	%	No.	%	No.	%	No.	%
Minimal	7	1.7	59	14.3	15	3.6	81	19.6
Moderately advanced	3	.7	71	17.2	42	10.3	116	28.2
Far advanced	2	.5	148	35.9	65	15.8	215	52.2
Total	12	2.9	278	67.4	122	29.7	412	100.0
Colored								
Minimal	4	1.9	15	7.3	1	.5	20	9.7
Moderately advanced	3	1.5	37	18.0	12	5.9	52	25.4
Far advanced	8	3.9	106	51.7	19	9.3	133	64.9
Total	15	7.3	158	77.0	32	15.7	205	100.0

TABLE II  
NUMBER AND PERCENTAGE OF CASES FOUND IN RELATION TO THE NUMBER X-RAYED, MALE AND FEMALE COMBINED, CLASSIFIED ACCORDING TO STAGE AND AGE GROUP

WHITE AGE GROUPS	Number X-Rayed	Min.		Mod. Adv.		Far Adv.		All Cases	
		No.	%	No.	%	No.	%	No.	%
Up to 16	2079	7	.34	3	.14	2	.10	12	.58
17-45	4232	59	1.40	71	1.67	148	3.50	278	6.57
46 Up	771	15	1.94	42	5.45	65	8.43	122	15.82
Total	7082	81	1.14	116	1.64	215	3.04	412	5.82
COLORED									
Up to 16	833	4	.48	3	.36	8	.96	15	1.80
17-45	1311	15	1.15	37	2.82	106	8.08	158	12.05
46 Up	316	1	.32	12	3.79	19	6.01	32	10.12
Total	2460	20	.81	52	2.11	133	5.40	205	8.32

The Phi Mu Fraternity, which has for many years been contributing to the maintenance in the field of our x-ray Health-mobile, again aided with a gift of \$1,500 in 1938. This is a generous and greatly appreciated assistance which has been of much value to the people of the State.

Occasion must be taken to express appreciation to the medical profession, local public health workers, local Seal Sale committees and tuberculosis associations, county welfare directors and other persons and agencies interested in wiping out tuberculosis for their wonderful cooperation. It is recognized that

charitable and welfare agencies to the State. Laws requiring adequate and proper isolation of communicable cases could then be enforced.

Summary

Fourteen thousand seventy-four x-ray examinations were made by the field x-ray unit and 820 new cases were discovered which was 217 more than were found in 1937.

Three thousand eleven new cases were reported in 1938 and 3,016 in 1937. The former are provisional figures, however, and will probably be somewhat increased by late reports.

In a case finding program the need is shown for concentrating efforts on low income groups of adults over 15 years of age and that the finding and early treatment of early pulmonary tuberculosis (chiefly to be found in the 15 to 25 year age group) should be greatly stimulated.

It is pointed out that 63 per cent of the deaths are in 36 per cent of the population—the Negroes—and that tuberculosis in Georgia cannot be controlled so long as this reservoir of infection is allowed to remain.

A 200 bed Negro Unit and 2,000 domiciliary beds for white and colored are shown to be vital needs.

The value of integrating the State Tuberculosis Sanatorium in the control program is made apparent.

The value of full-time County Health Units is demonstrated.

H. C. SCHENCK, M.D., *Director,*  
*Division of Tuberculosis Control.*

#### NEWS ITEMS

THE MACON MEDICAL SOCIETY of Bibb County met at Ridley Hall, Macon, May 16. Dr. J. D. Bradley read a paper on *Bronchial Asthma with Special Reference to Some of the Newer Drugs*.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on May 9. Dr. Ruskin King read a paper on *Abdominal Pain in Children*; Dr. H. J. Morrison and Dr. J. H. Pinholster led the discussion. Dr. S. C. Lynn reported a case, *Complications of Pneumothorax*. A sound moving picture in colors was shown.

THE STAFF MEETING of Grady Hospital, Atlanta, was held on May 9. Dr. C. W. Strickler and Dr. L. G. Able presented cases on pneumonia with discussion of therapy.

THE WALKER-CATOOSA-DADE COUNTIES MEDICAL SOCIETY met at the office of Dr. Chas. W. Stephenson, Ringgold, May 1. Dr. C. H. Barnwell, Chattanooga, Tenn., spoke on *The Latest Treatment for Urinary Disease*. Dr. Lloyd Wood, Dalton, was the principal local speaker.

DR. J. A. REDFEARN, Albany, city health officer, and Dr. J. C. Keaton, Albany, Dougherty County commissioner of Health, have endorsed and are aiding the Dougherty County Tuberculosis Association in its drive for early diagnosis of tuberculosis.

THE DEKALB COUNTY MEDICAL SOCIETY met at the Candler Hotel, Decatur, May 5.

THE CHATHAM-SAVANNAH TUBERCULOSIS ASSOCIATION sponsored an early diagnosis campaign recently.

DR. MONTAGUE L. BOYD announces the association of Dr. John B. Nuckolls in the practice of urology at 563 Capitol Ave., S. W., Atlanta.

DR. J. R. GARNER, chief surgeon of the Georgia Railroad, announces the following changes in the surgical staff: Dr. Harry Moses, consulting surgeon at

Macon; Dr. J. C. Anderson, senior local surgeon at Macon; Dr. C. N. Wasden, junior local surgeon at Macon.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on May 23. Dr. William Barfield, St. Joseph's Infirmary, Savannah, read a paper on *Modern Trends in Blood Transfusion*; the discussion was led by Dr. E. T. Upson and Dr. H. C. Frech, both of Savannah. Dr. T. J. Charlton, Savannah, reported a case, *Leontiasis Ossea*.

THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL, New York City, is inaugurating a combined full time course in Urology, covering an academic year (8 months), on October 1, 1939. It will comprise instruction in pharmacology; physiology; embryology; bio-chemistry; bacteriology and pathology; practical work in surgical anatomy and urologic operative procedures on the cadaver; regional and general anesthesia (cadaver); office gynecology; proctological diagnosis; the use of the ophthalmoscope; physical diagnosis; roentgenological interpretation; electro-cardiographic interpretation; dermatology and syphilology; neurology; physical therapy; continuous instruction in cysto-endoscopic diagnosis and operative instrumental manipulation; operative surgical clinics; demonstrations in the operative instrumental management of bladder tumors and other vesical lesions as well as endoscopic prostatic resection. At a staff meeting on May 4, Dr. Walter C. Alvarez, Mayo Clinic, Rochester, Minn., read a paper on *The Patient Who Doesn't Get Well in Spite of Much Treatment*.

DR. EARL FLOYD, Atlanta, was a guest speaker before the recent meeting of the Mississippi State Medical Society at Gulfport.

E. L. EVANS DRUG STORE, Coolidge, offers excellent inducements to secure the services of a physician at that place.

THE CHATTAHOOCHEE VALLEY MEDICAL ASSOCIATION will hold its thirty-ninth annual meeting at Radium Springs, Albany, July 11-13.

THE GEORGIA PUBLIC HEALTH ASSOCIATION held its last annual meeting at the Biltmore Hotel, Atlanta, June 8-10. Speakers on the program included: Dr. T. F. Abercrombie, Atlanta; Dr. Wm. H. Myers, Savannah, president of the Association; Dr. T. O. Vinson, Griffin; Dr. Justin Andrews, Atlanta; Dr. W. F. Castellow, Americus; Dr. A. Wilson Brown, Atlanta; Dr. J. E. Lester, Marietta; Dr. R. E. Dyer, U. S. P. H. S.; Dr. Guy G. Lunsford, Atlanta; Dr. Hugh J. Bickerstaff, Atlanta; Dr. H. C. Schenck, Atlanta; Dr. C. M. Sharp, Alto; Dr. John W. Oden, Milledgeville; Dr. Felix J. Underwood, Jackson, Miss.

THE SIXTH DISTRICT MEDICAL SOCIETY will meet at Forsyth on June 29.

THE MICHAEL REESE HOSPITAL, Chicago, will offer a graduate course in Electrocardiography which will be given at the Hospital, August 21 to September 2.

DR. STEWART R. ROBERTS after being out of practice for several months, has resumed practice with offices located at 768 Juniper Street, N. E., Atlanta.



# ARTHRITIS: TREATMENT BY HYPERPYREXIA

CHART VI  
Duration of Symptoms—In Years

Type	Less Than						More Than
	½ Year	½-1	1-2	2-3	3-4	4-5	5 Years
Atrophic (Infectious)	36	4	2	1	6	4	18
Hypertrophic	46	19	9	6	8	4	36
Mixed Type (Atrophic and Hypertrophic)	8	3	2	2	2	2	19
Gonococcic	18	2	1	0	2	0	2
Hyperthyroid	1	0	0	0	0	0	1
TOTAL	109	28	14	9	18	10	76

CHART VII  
Results of Treatment

Type	Total No. Cases	Relieved		Improved		Unimproved	
			Per Cent		Per Cent		Per Cent
Atrophic (Infectious)	71	8	11.3	49	69.0	14	19.7
Hypertrophic	128	18	14.0	73	57.0	37	29.0
Mixed Type (Atrophic and Hypertrophic)	38	3	7.9	22	57.9	13	34.2
Gonococcic	25	6	24.0	13	52.0	6	24.0
Hyperthyroid	2	2	100.0				
TOTAL	264	37		157		70	

were relieved by further treatments. In still other cases, a comparatively large number of treatments were given before any improvement appeared. One patient with a chronic atrophic arthritis occurring in both limbs of a hemiplegic side showed little improvement till after the thirtieth treatment, when he suddenly announced almost complete relief from pain, and showed a marked increase in motion of the affected joints. This improvement progressed after treatment was discontinued, and has been permanent.

Some of the patients who were treated shortly after the beginning of their symptoms were completely relieved by three to six treatments, whereas cases of longer duration usually required many more before beneficial results were obtained. The number of treatments given to the average patient has been between 12 and 20. Patients who were given 50, 80, or more treatments are those who received only temporary relief from hyperpyrexia, and who returned of their own accord for one or two treatments whenever they noticed an increase of their symptoms, some such patients coming for distances of 90 to 165 miles. One patient who received 184 treatments (Chart No. II) was a male of 65 years suffering from hypertrophic arthritis, sacro-iliac arthritis, and from a marked tinnitus. His treatments usually lasted about one hour, with a maximum temperature of only 101° (oral), but he insisted upon taking them because this was the only therapeutic measure that afforded him relief.

## Summary

1. We have presented an analysis of 264 cases of arthritis of various types treated by hyperpyrexia.

2. A cabinet type of machine was used, and all treatments were given in the office.

3. Treatments were of short duration, varying from one hour to 5 hours, with temperature varying from 101° (oral) to 105.5° (oral) in the atrophic and hypertrophic types and from 105° (oral) to 106.5° (oral) in the cases of gonorrheal arthritis.

4. Results show that (a) hyperpyrexia is useful in the treatment of both atrophic and hypertrophic arthritis as well as in the treatment of gonorrheal arthritis, (b) that the procedure can be made safe in the treatment of cases of hypertrophic arthritis, and (c) that further observation on this method of treatment should be made before it is discarded as a therapeutic procedure for atrophic and hypertrophic arthritis.

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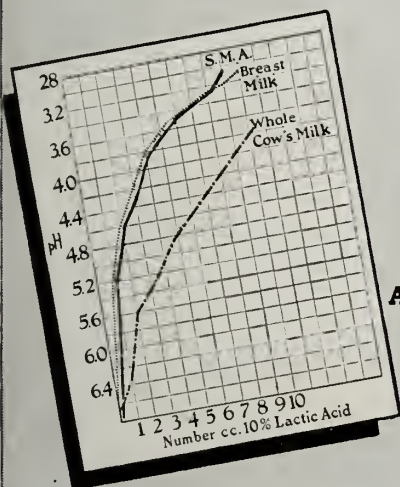
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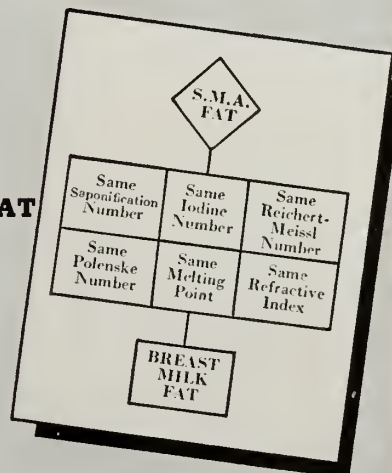
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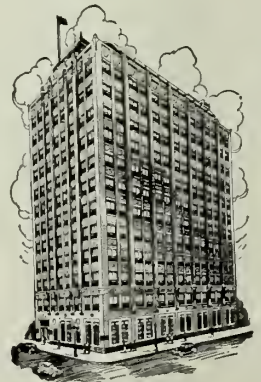
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### A COMPARATIVE VALUE OF ANTI-SYPHILITIC DRUGS AND THE PROBLEM OF THE WASSERMANN-FAST PATIENT\*

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*New York City*

For a number of years after I first began to devote myself to problems connected with the treatment of syphilis I found that I was very uncertain, both as to which arsenical it was best to use, and as to what dosage was most effective. I had had it impressed upon me repeatedly that old arsphenamine was far too toxic a drug to be given freely, and that, furthermore, the method by which it was administered was so complicated as to render its use far less preferable than that of neoarsphenamine, for example. True, I was told, the latter drug was not so effective as its parent; but we could, I was assured, compensate for this deficiency by giving a larger number of injections of it, and in relatively larger doses. The extravagant claims made concerning the effectiveness of silver arsphenamine as an antisyphilitic agent still further complicated the problem. Its proponents insisted that not only was silver arsphenamine equally as efficacious as old arsphenamine in the treatment of primary and secondary syphilis, but that it had the additional advantage of being able to penetrate the central nervous system to a much greater degree than did any other arsphenamine derivative; hence their advocacy of its use in neurosyphilis. After silver arsphenamine there appeared sulfarsphenamine and bismarsen, and, more recently, mapharsen, not to mention a host of other less important arsenic compounds proposed for the treatment of syphilis. Each

of these preparations had its own merits, of course, which were emphasized—and, in many instances, grossly overemphasized—by clever advertising and expert salesmanship, as well as by articles written by capable research workers and clinicians in whose eyes one or the other drug found particular favor.

Confused by this welter of mixed and sometimes contradictory opinions, and feeling that if I were ever to arrive at a definite and satisfactory plan of therapy I must first clarify in my own mind the relative merits of the arsenicals most commonly used in syphilis, in 1927 I started a series of studies having as their purpose to test the comparative value of old arsphenamine, neoarsphenamine, silver arsphenamine and sulfarsphenamine in the treatment of syphilis. Early in the study, however, we discarded the last-named drug, both because of its great toxicity and because of its obvious inferiority to the other three preparations. The final results of our researches were published in 1931.<sup>1</sup> We found that in the time required for the healing of the primary lesions, for the disappearance of secondary surface lesions, and for a positive Wassermann reaction to become negative, as well as in the number of injections and the amount of the drug required to produce these results, old arsphenamine far outdistanced both of the other drugs tested. We also found that patients suffered far fewer relapses after treatment with old arsphenamine than after either neoarsphenamine or silver arsphenamine. Furthermore, to our real surprise, old arsphenamine also apparently caused far fewer reactions, both of the mild (early) and severe (delayed) types, than did either neoarsphenamine or silver arsphenamine.

Six years later (1937), in a survey of the comparative results obtained over a period of twenty years in the treatment of syphilis with different arsphenamine preparations, I<sup>2</sup> was

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\*Read before the Fifth District Medical Society, Atlanta, April 13, 1939.



able to confirm our earlier results as to the rapidity of healing of the primary lesions, the disappearance of the secondary surface lesions, and the lower percentage of relapses with old arsphenamine; while, in addition, I found that patients treated with that drug showed a much higher proportion of satisfactory end results than did those who had been treated with either neoarsphenamine or silver arsphenamine. In the period 1927-1938 three different investigators working with me have in turn checked our statistics on the comparative value of these three drugs; and as each of them progressed with his researches it became increasingly obvious to him that there was really no basis for comparison between them. Silver arsphenamine proved to be just as effective as neoarsphenamine; indeed, in some ways it was even so much better than that drug that whenever it has been necessary for us to choose an alternative to old arsphenamine we have used silver arsphenamine. We have not given a single injection of neoarsphenamine in my private practice since 1930, nor at the Vanderbilt Clinic since 1931; and I feel that the therapeutic results we have obtained have more than justified our choice.

I believe that the lukewarm reception accorded to old arsphenamine and the number of reactions attributed to it are due, in large part, to the comparative inexperience of most physicians in administering it; and that as their familiarity with its use increases, to that same extent will the number of reactions which they experience with it decrease, and a greater understanding and appreciation of its value be reached by them.

The comments that were made on our first comparative study of the arsphenamines<sup>1</sup> showed us that while most syphilologists agreed with us as to the greater therapeutic value of old arsphenamine, and some even admitted that they had found it to produce fewer and less severe reactions than did neoarsphenamine, they nevertheless felt that because of the difficulties involved in dissolving and alkalinizing it, and because of the complicated apparatus and the length of time required to administer it by the gravity method, old arsphenamine would never be adapted to widespread use. We felt that these were just

criticisms, and we immediately set about devising ways of overcoming them. Approaching the problem of alkalinization first, we enlisted the aid of the Dermatological Research Laboratories, to whose director it was suggested that along with the ampules of arsphenamine which they put out they should also dispense ampules containing sodium hydroxide in sufficient strength to alkalinize a given dose of arsphenamine. To this idea he objected that as sodium hydroxide would erode glass, it could not be preserved in the ampule for longer than four or six weeks at a time; and since, as he further pointed out, druggists, particularly in outlying districts, often had the same supply of the drug on hand for several months, it could readily be seen that this suggestion would not work. After considerable experimentation the idea was finally conceived of lining each sodium hydroxide ampule with paraffin, which would keep the sodium hydroxide from acting on the glass and make it possible to preserve the solution indefinitely. And so eventually there appeared on the market ampules containing varying doses of arsphenamine, each ampule being accompanied by a paraffin-lined ampule containing just enough sodium hydroxide, and of the proper strength, to alkalinize the accompanying dose of arsphenamine.

But even after alkalinization had become an easily accomplished fact old arsphenamine was still regarded as not being adapted to general use, owing to the fact that it was thought necessary to dissolve it in large quantities of normal saline solution and to administer it by the gravity method, processes which were too time-consuming and, as far as the apparatus was concerned, too costly to be practicable anywhere except in the large clinic. For some time previously I had been experimenting with injecting small quantities of a concentrated solution of arsphenamine by syringe, not using any saline solution at all, but simply dissolving the drug in sterile, distilled water, adding the necessary amount of sodium hydroxide, and injecting 20 or 30 cc. of the resultant solution. Now, using the newly prepared ampules of arsphenamine and sodium hydroxide dispensed by the Dermatological Research Laboratories we worked out

a very simple technic for preparing and administering this concentrated solution of old arsphenamine, as follows:

The arsphenamine powder was first dissolved in sterile, distilled water at room temperature, 10 cc. being used ordinarily for each decigram of the drug, and then the solution was alkalized by the addition of the sodium hydroxide from the ampule packed with the ampule of arsphenamine which has just been dissolved. When the flocculate which formed on the addition of the sodium hydroxide had entirely disappeared the solution was tested for its alkalinity with litmus paper. As soon as it was sufficiently alkaline, 20-30 cc. was put into an all-glass syringe and injected in routine fashion. I found after repeated experimentation that the incidence of untoward reactions to the drug was considerably lessened if, instead of injecting the solution steadily and continuously, as has been the practice hitherto, I used a kind of "stop-and-go" technic, injecting 3-5 cc., pausing 20-30 seconds, injecting another 3-5 cc., and so on, alternately injecting and pausing until all of the solution had been administered.

From this description of the technic which we have evolved it can readily be seen that to give arsphenamine thus requires very little more effort than does the injection of neoarsphenamine or of silver arsphenamine. As a matter of fact practically the only difference is that it takes a little longer to dissolve old arsphenamine than it does to dissolve the other two drugs, and that one has to unscrew the top of the ampule of sodium hydroxide and add that substance—a process involving no more exertion than would be required, for example, to unscrew the top of a bottle of tabasco sauce and pour the sauce on oysters. And who is there among the members of the medical profession so indolent, or so inept, that he finds it more troublesome and tiring to carry out therapeutic measures which he knows to be superior to all others than he does to gratify his own personal gastronomic whims? I am convinced that anyone who knows how to give neoarsphenamine can, if he will, learn to give old arsphenamine successfully. None of the remedies which we have for syphilis at the present time is completely successful. Hence it would seem that



Fig. 1.—Case 1, showing extensive mucous patches on uvula, soft palate and pharynx appearing after treatment with neoarsphenamine.

instead of putting our trust in those which are acknowledged to be inferior, we should by all means rather use the one which has proved itself, by all standards, both of therapeutic efficacy and of practical convenience, to be the best.

As to whether to use bismuth or mercury in conjunction with arsphenamine, Robertson and I<sup>3</sup> found that "neither drug appears to have such a decided advantage over the other as much strongly partisan testimony would lead one to believe."<sup>3</sup> It was shown in our investigations that mercury gave far more brilliant but less uniform results than did bismuth. Hence we felt that mercury was better for robust patients whose natural defenses were, in the words of our report, "perhaps more effectively stimulated by mercury"; while for patients who were not very robust, or who for any reason at all did not react well to mercury, bismuth seemed to be the more desirable adjuvant.

*Management of the Wassermann-fast Patient.*—I have been asked to say a few words also about the treatment of Wassermann-fastness. This condition is, to my mind, one of the most difficult problems with which we have to deal in the treatment of syphilis, particularly when the patient is a young person, who would normally have a fairly long life expectancy. I have usually considered the patient with late syphilis to be what we ordinarily call Wassermann-fast when his Wassermann reaction remained unchanged after two years of continuous treatment with alternating courses of a heavy metal and old ars-



phenamine. It has been my experience that there is rarely any change in the intensity of a positive Wassermann after one year of therapy; on the other hand, I do not expect to obtain a negative Wassermann until after I have given at least three courses (thirty weekly injections) of arsphenamine, and three courses (forty-five weekly injections) of mercury or bismuth.

It is generally thought that what we have been pleased to call "Wassermann-fastness" is due to the presence of some remote, inaccessible focus of infection, located either in the nervous system, cardiovascular system, eye, liver, spleen or bone marrow. To my way of thinking, however, the most common cause of this condition is to be found in errors of treatment technic, among the most important of which may be noted the use of ineffectual drugs, too small doses, too short a period of treatment, too long intervals between the injections, or rest periods between the courses. As a matter of fact, I have come to believe that the term "Wassermann-fast" is, in a great many instances, a misnomer, and that most of the cases which have been so designated should, in the interests of accuracy, rather be termed "Wassermann-resistant." For I have found that most of the patients whom we have, in the past, considered to be Wassermann-fast, would, in the absence of any definite focus of infection, and if they were treated over a sufficiently long period of time with a strong drug such as arsphenamine, eventually tend to become seronegative. The following cases will illustrate my contention:

#### *Report of Cases*

*Case 1.* Mr. C., white, unmarried, aged 26, was referred to me on March 7, 1939, as a case of Wassermann-fastness, with active secondary syphilitic lesions and constitutional symptoms of syphilis. The initial lesion had appeared on September 15, 1938. His physician had advised postponing treatment until after the appearance of the secondary eruption. On October 15 a generalized, muscular secondary eruption was noticed. The patient complained of sore throat, headache, and general malaise. The inguinal glands were enlarged. Both Wassermann and precipitation tests were strongly positive.

Treatment was begun immediately. The patient received in all twenty injections of neoarsphenamine, in doses ranging from 0.3-0.6 Gm., and two injections of bismuth. While he was under treatment mucous patches appeared in his throat and on his tongue, and a rash on his face. The Wassermann, Kahn and Kline tests were all still strongly positive (4+).

He was then referred to a syphilologist, who gave him daily mercury rubs for 15 days. The mucous patches disappeared. He was then given two injections of silver arsphenamine of 0.2 Gm. each at weekly intervals, one injection of sterile milk, and potassium iodide by mouth. The mucous patches in the mouth reappeared. The Wassermann reaction was still 4+.

It was at this point that I first saw the patient. He was obviously ill and showed a marked pallor and depression of spirits. He complained of general weakness, constant headache and rumblings in his head, inability to eat because of his sore throat, and a marked swelling in the right cervical lymph node.

His throat on examination showed a marked redness and edema of the soft palate, uvula and pharynx, with ulceration and partial destruction of the uvula. The posterior wall of the pharynx and the soft palate showed two ulcerations, one the size of a dime and the other the size of a five-cent piece, having the typical appearance of mucous patches. There was marked swelling and bleeding of the gums, and a decided metallic odor was apparent on the breath. The gland at the angle of the right lower jaw was the size of an English walnut. A few nodules and papules were scattered over the trunk and the extremities.

The heart was slightly enlarged on percussion. The rate was 118 per minute, and regular. There were no murmurs. Blood pressure was 100/80. Darkfield examination of secretions from the ulcer in the throat showed numerous *Spirochaetae pallidae*. The blood Wassermann was strongly positive with both antigens, as were also the Kahn, Kline and Hinton tests.

The patient was given one injection of 0.3 Gm. of old arsphenamine and instructed to irrigate his throat frequently with hot normal saline solution, and to return in two days. Instead, however, he came back after twenty-four hours, to report that already he felt like a different person. The headache and rumbling noises in his head had disappeared, and his throat was much less sore. Darkfield examination of the secretion from the ulcers in his throat revealed that there were still some *Spirochaetae pallidae* present. Two days after the first treatment he was given a second injection of old arsphenamine. Twenty-four hours later the lesions, swelling and redness had almost disappeared from his throat, and Darkfield examination of the secretions from the ulcers showed that there were no longer any *Spirochaetae pallidae* present. Two days after the third injection the mucous patches were practically healed and the enlarged cervical gland was reduced to the size of a hazel nut. From March 7 to April 4, 1939, the patient received ten injections of old arsphenamine in doses ranging from 0.3 to 0.4 Gm. At the present writing he is entirely free from symptoms and is feeling very well. His Wassermann reaction is still slightly positive (2+ with alcoholic antigen; 3+ with cholesterol antigen).

This case illustrates very clearly the futility, not only of using ineffective drugs, but also of jumping from one remedy to another—in this instance, from neoarsphenamine and bismuth to mercury rubs and silver arsphenamine—before the patient had received an adequate



amount of any one of the drugs. Obviously such a case cannot properly be called Wassermann-fast, first, because the infection was so very recent, second, because of the short period of time during which the patient had been treated, and, lastly, because of the ineffectiveness of the drugs which had been used.

*Case 2.* Mr. T., aged 41, consulted me first in 1918. During the course of a routine examination for secondary anemia at the hands of another physician it had been discovered that he had a strongly positive Wassermann reaction (4+). He denied having had any primary or secondary lesions. He had been given six injections of neoarsphenamine and mixed treatment by mouth for six months prior to the time when he first consulted me. When his physician found that there was no decrease in the intensity of the Wassermann reaction after this treatment he told the patient that he was evidently Wassermann-fast, and that hereafter it would be necessary for him to take only mixed treatment by mouth for two months out of each year.

Physical examination revealed nothing except a mild, secondary anemia. Both the spinal fluid test and the electrocardiogram were negative. The Wassermann reaction was still positive.

We gave him continuous treatment, consisting of alternating courses of old arsphenamine and mercury, with potassium iodide by mouth while he was taking mercury. He received a total of thirty-two injections of arsphenamine and seventy-five of insoluble mercury salicylate. His Wassermann reaction became negative after two years of this treatment and has remained so ever since.

Although this patient had been considered Wassermann-fast by a very reliable physician, it is quite evident that he cannot rightly be so classified, since after continuous treatment with old arsphenamine and mercury his serology became permanently negative.

*Case 3.* Mr. A. was referred to me in Feb., 1935, with a late secondary syphilitic eruption of two years' duration, involving the scrotum, penis, backs of the hands, forehead and tongue.

In Dec., 1932, he had first consulted his physician on account of the appearance of a chancre. Darkfield examination of the secretion from the chancre showed the presence of numerous *Spirochaetae pallidae*. The Wassermann reaction was negative. His physician advised postponing treatment until after the appearance of the secondary lesions. When the patient returned four weeks later he had a generalized maculopapular eruption and a sore throat. Both the Wassermann and the precipitation tests were strongly positive (4+).

Treatment was begun immediately and continued for two years. During that time the patient received a total of seventy injections of neoarsphenamine in doses ranging from 0.3-0.6 Gm., in alternation with one hundred and five injections of several different bismuth preparations, of varying degrees of merit, besides iodides at intervals. In all that time he had never once been entirely free from secondary lesions, although they



Fig. 2.—Case 3, showing active scrotal lesions after two years of continuous treatment with neoarsphenamine.

were much less numerous at some times than at others. In referring him to me his physician said that in spite of everything he had done for the patient he had not been able to bring about any change, either in the clinical symptoms or in the serology.

When I examined the patient I found numerous serpiginous, papular, scaly lesions on the scrotum, penis, backs of the hands and forehead, and patches on the dorsum of the tongue. Otherwise the general physical examination, including electrocardiogram, urinalysis and examination of the spinal fluid, was essentially normal. The blood Wasserman was strongly positive (4+) with both antigens, as were the Kahn and Kline tests.

Treatment with old arsphenamine was begun immediately. After the first injection (0.35 Gm.) the lesions were much drier and less red than they had been previously, and the patient said that he felt much more comfortable, both physically and mentally. After the third injection the lesions disappeared almost entirely, and when the patient returned home after having received ten injections of old arsphenamine he was entirely free from surface lesions. A plan was outlined, according to which his physician was to continue the arsphenamine and mercury injections, and I understand that the treatment was ultimately concluded with complete success.

There are, of course, some patients who can still quite properly be called "Wassermann-fast," whose serology, in spite of prolonged and adequate treatment, will continue to be positive. Our method of treating such cases is to alternate three courses, of fifteen weekly injections each, of a heavy metal mercury or bismuth—with three courses, of ten weekly injections each, of old arsphenamine. If after the patient has completed the cycle of three courses of each drug, there is still no appreciable change in the intensity of the Wassermann reaction, we advise a six months' rest from any injections whatsoever, but during that time have the patient take mercury and iodides by mouth in mixed treat-

ment, according to either of the following prescriptions:

1. Pills, each containing 1/16 grain of mercuric chloride and 5 grains of potassium iodide.

Rx. One pill three times a day, preferably dissolved in water, before meals.

2. Hydrarg. chlor. corros. gr. iii; Potassium iodide oz. ii; Elixir lactopep. q.s. ad oz. vi.

Rx. One teaspoonful three times a day in glass of water 15 to 20 minutes before meals.

When the six months' rest period is over the patient is given a thorough physical examination, and blood count, urinalysis and blood Wassermann are taken again. He is then given, first one course of arsphenamine, and then one of mercury or bismuth, followed by another six months' rest period, at the conclusion of which he again receives one arsphenamine course followed by one of mercury or bismuth. This alternating plan is followed for four years. If at the end of that time the patient still shows a positive serology we discuss with him the advisability of discontinuing treatment except for the mixed treatment by mouth, which we advise him to continue taking for three months out of each year. We also insist that he come back at least once a year for a complete physical examination, in order to guard against the development of active symptoms.

The extensiveness with which the late syphilitic is treated should depend, I think, largely on the condition of the patient himself. If he is a comparatively young, healthy person, I feel that it is most important to obtain a negative serology, if that is at all possible, for a complete cure may add years to the activity and happiness of his life. If such a patient is still Wassermann-fast after two years of regular and continuous treatment with mercury and arsphenamine, as described above, I frequently advocate a change in method of treatment; for I have found that by giving fever therapy—either fever box, malaria, or typhoid vaccine—we were very often able to obtain a permanently negative Wassermann reaction in a much shorter time than by the routine alternation of mercury or bismuth with arsphenamine. If, however, the patient is over fifty years of age, and particularly if he is not very vigorous, I do not advise any but the milder forms of treatment, considering it better not to disturb him by energetic therapeutic measures, but simply

to keep him as comfortable as possible for the years of life yet remaining to him.

### Summary

Arsphenamine has proved by all tests, namely, in the time required for the healing of the initial lesion, for the disappearance of the secondary surface lesions, and for a positive Wassermann to become negative, as well as in the amount of the drug and the number of injections needed to accomplish the above-mentioned results, to be far superior in therapeutic efficacy to either neoarsphenamine or silver arsphenamine. It has also shown itself to yield a lower percentage of relapses and a higher percentage of satisfactory final outcomes, and to be less productive of untoward reactions than either of the other two drugs mentioned.

The difficulties formerly connected with its alkalization and administration by gravity have been largely overcome by the development of a simple technic for alkalizing it and administering it by syringe.

Most so-called "Wassermann-fast" cases are actually Wassermann-resistant ones, which have resulted from insufficient treatment and the use of inadequate drugs, rather than from the existence of any focus of infection.

True Wassermann-fastness should be treated vigorously in the young patient, but in the case of the elderly syphilitic efforts should be directed rather toward keeping him as comfortable as possible for the remaining years of his life than toward the establishment of a complete cure.

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### RADIUM IMPORTS ARE INCREASING

The increasing importation of radium into the United States at reduced prices, as indicated by new records set in 1938, is making this element more available as a weapon against cancer, *The Journal of the American Medical Association* for May 20 points out.

"Although the field of the use of radium has been invaded by high voltage x-ray machines," *The Journal* says, "the increasing intensity of the struggle against cancer has more than offset any tendency toward substitution; for internal radiation, in particular, radium treatment possesses unique advantages."

## LOW NODAL PAROXYSMAL TACHYCARDIA

### *Case Report of Patient Treated with Monopotassium Phosphate*

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Atrioventricular nodal paroxysmal tachycardia is a rare type of cardiac dysfunction. White and Sprague<sup>1</sup> found only four examples in ten thousand electrocardiograms at the Massachusetts General Hospital. At the Mayo Clinic, Willius and Barnes<sup>2</sup> record three cases in nine years. Taran and Jennings<sup>3</sup> in 1937 in a review of the literature concerning paroxysmal tachycardia for forty-three years (1892-1935) found fifty-two cases of tachycardia in children between the ages of four days and fifteen years. Of this number, only three were definitely diagnosed as "nodal" in origin. Koplik,<sup>4</sup> reporting the occurrence of atrioventricular nodal tachycardia in a girl of three years, controlled the attack with digitalis, but thought this drug too dangerous to use continuously between attacks because of the likelihood of digitalis block.

Hall<sup>5</sup> recorded the case of a school mistress, aged fifty-one years, with thyrotoxicosis and auricular fibrillation. A week's treatment with rest in bed, bromine, digitalis and Lugol's solution slowed the ventricular rate from 105 to 80. After quinidine for six days, the fibrillation was replaced by auriculoventricular nodal rhythm with inverted P waves between the R and the T waves, as was demonstrated in Leads II and III. Two days later, there was a reversion to the sinoauricular rhythm with a normal P-R interval and a rate of 100.

Willius and Amberg's<sup>6</sup> patient was a girl of seven years with a paroxysmal auriculoventricular nodal tachycardia following pertussis. After 65 mg. of quinine sulphate every four hours, day and night, the rapid rate was abolished, but the slower atrioventricular nodal rhythm persisted. With withdrawal of quinine, the paroxysms returned; so she was left on quinine, and continued with a slow nodal rhythm.

Taran and Jennings<sup>3</sup> report a new-born white boy, second of twins, delivered a few

minutes after the first child by version and extraction, who on the fifth day developed an atrioventricular nodal tachycardia. Vagal stimulation failed to slow the heart rate. Physostigmine salicylate, 1/300 grain, was injected intravenously into the longitudinal sinus. A complete cardiac standstill ensued for five seconds, and then a slower nodal rhythm, with an occasional normal P wave entering in, was demonstrated. Further administration of physostigmine salicylate gave only a transitory effect, and the appearance of congestive failure led to the administration of digitalis in the form of digifolium. Two hours after its administration, a normal sinus rhythm at a normal rate was established.

These authors pointed out in their review that paroxysmal tachycardia in general has no predilection as to age and sex; that leading predisposing factors seem likely to be measles, pertussis, infectious diseases, with a high incidence in congenital heart disease; that auricular arrhythmia is more common than the nodal or ventricular one; and that prognosis depends more on etiology than on the type of arrhythmia present. This latter observation is in agreement with Willius.<sup>7</sup>

It is generally believed that, while auricular and nodal paroxysmal tachycardia usually are not associated with organic heart disease, ventricular paroxysmal tachycardia occurs only in cases of serious heart disease, particularly coronary occlusion. Levine<sup>8</sup> found ventricular tachycardia as a complication of coronary thrombosis in five per cent of the cases.

White's<sup>9</sup> three conditions necessary for the establishment of atrioventricular nodal rhythm are:

1. A marked depression of the sinus node.
2. Normal activity of the atrioventricular node.
3. Ability of the impulse to pass backward from the junctional tissue with the auricles to cause their contraction; that is, the absence of a state of reversed block.

#### *Case Report*

A doctor's secretary, aged 41 years, came for examination on January 20, 1938, because of attacks of rapid heart action. These attacks had been occurring at irregular intervals for fifteen years. Coming on at any time, they would last from a few minutes to



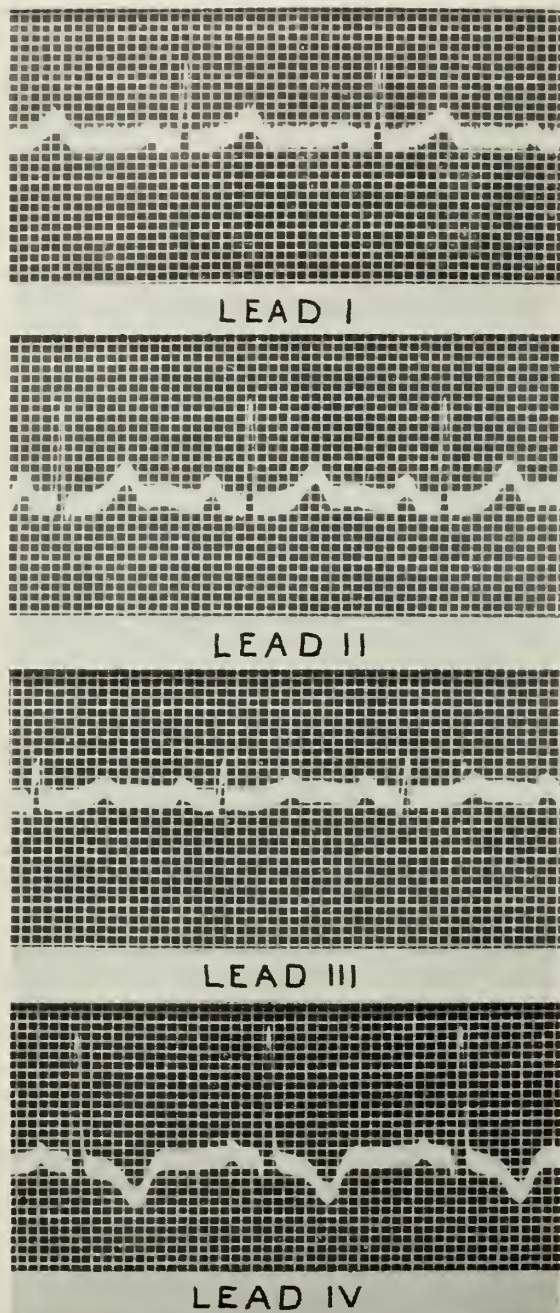


Figure I—January 21, 1938.

twenty-four hours, and end as suddenly as they had begun. In February of 1934, following a night of persistent tachycardia and palpitation, associated with great anxiety and fear of impending death, the patient, while going down stairs, fainted for the first time. Since that time, the attacks have been associated with giddiness and vertigo, extreme nausea, weakness, coldness of the extremities, and great anxiety. She had learned that the attacks could be precipitated by coughing, taking a deep inspiration, or sometimes by leaning over to tie her shoe. On Jan. 18, 1938, she was awakened by a forceful, irregular, and rapid heart beat. Half an hour after onset, and after walking about the room, she suddenly felt nauseated, became cyanotic and cold, and lost consciousness.

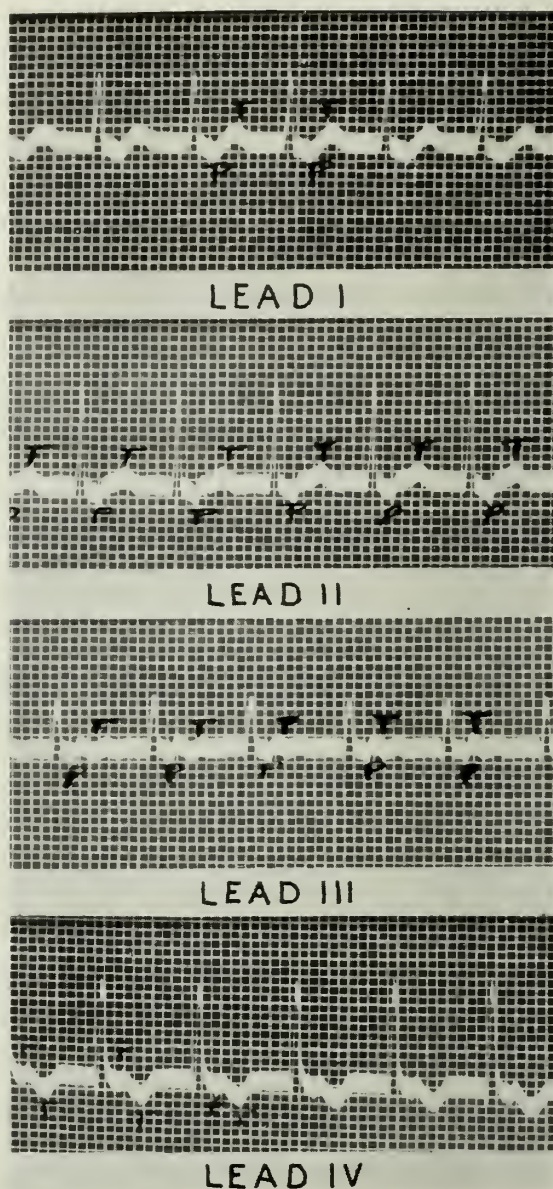


Figure II—Patient, A. H.: January 26, 1938.

In 1902, she had diphtheria with a stormy course. In 1916, there was a subtotal thyroidectomy. She had never had any rheumatism, chorea, nor frequent sore throat. The family history was unimportant. She averaged three cups of coffee a day, and tea once or twice a day. She used no tobacco nor alcohol in any form.

*Physical Examination.* The patient was a somewhat undernourished woman about forty years of age, with fine-textured, dry skin. The hair was coarse, and there was hirsutism of the upper lip. The heart was not enlarged and its sounds were not remarkable. At the apex, following a slightly accentuated, clear first mitral sound, there was heard a very soft systolic murmur that was not transmitted. The heart rate showed physiologic fluctuation following exercise. There were no other murmurs. The aortic second sound was slightly impure and greater than the pulmonic second sound. Blood pressure was 132/82.



**Laboratory Findings.** On Jan. 21, 1938, the urine and stool examinations were essentially negative. The blood count showed 3,990,000 red blood cells, hemoglobin of 81 per cent (Sahli), color index 0.9; white blood cells were 10,800, with a normal differential. Blood cholesterol was 204.0 mg. per cent, and blood calcium was 9.7 mg. per cent. The blood Kahn and Wassermann tests were negative. No malaria was found. The basal metabolic rate was minus 19.

An electrocardiogram on Jan. 21 (Fig. 1.) revealed a normal rhythm; a low voltage  $Q_4^*$  was present, but no importance was attached to this isolated finding.

X-ray telegram of the heart showed a protic, narrow heart in keeping with body habitus, showing slight prominence of the right border between the ninth and tenth vertebrae, but of normal measurements. The posterior mediastinum was clear to fluoroscopic examination.

From the history, a diagnosis of psychoneurosis with paroxysmal auricular tachycardia was made. There were present also a hypothyroidism and secondary anemia.

On Jan. 26, 1938, the patient returned, at which time she accidentally precipitated an attack of rapid heart action while bending over to tie her shoe. She complained of marked vertigo and palpitation. The pulse rate was 150 per minute; there were no dropped beats. The heart sounds were regular, but with the rapid rate of 150 per minute. The heart sounds were not slowed or changed by pressure over either eyeball nor over either carotid.

The electrocardiogram taken at this time (Fig. 2) revealed a rapid low nodal tachycardia, with abnormal P following the QRS. Here the impulse for origin of the heart beat was in the nodal area low in the atrio-ventricular node, and the impulses were sent out simultaneously upward to the auricles and downward into the ventricles, so that each QRS was followed by an inverted P-wave in the same relationship to each lead. This in turn was followed by the later contracting ventricle with the upright T-wave in the same relationship in all the leads. The abnormal rate suddenly terminated during deep, firm pressure over the left eyeball.

The patient was placed on thyroid extract (American product), one-half grain daily, anterior pituitary-like hormone, a liver and iron preparation, and monopotassium phosphate, grains 30, three times a day after meals.

On March 2, 1938, the electrocardiogram (Fig. 3) showed a normal tracing.

On June 8, 1938, the blood count showed 4,460,000 red cells, with hemoglobin content of 81 per cent (Sahli), and color index of 1.0.

On Sept. 8, 1938, the red cells were 4,090,000, with hemoglobin content of 78 per cent (Sahli), and color index of 0.9. Blood cholesterol was 120 mg. per cent. The electrocardiogram at this time (Fig. 4) showed a normal tracing except for the low voltage. The basal metabolic rate was minus 12.

During the period of treatment, i.e., since Jan. 26, 1938, the monopotassium phosphate has been given

\*Lead IV referred to in this paper was taken with the precordial electrode in the fourth left intercostal space half way between the left sternal border and the left border of cardiac dullness. Lead IV-F (Fig. 4) was taken as recommended by the American Heart Association and the Cardiac Society of Great Britain and Ireland.

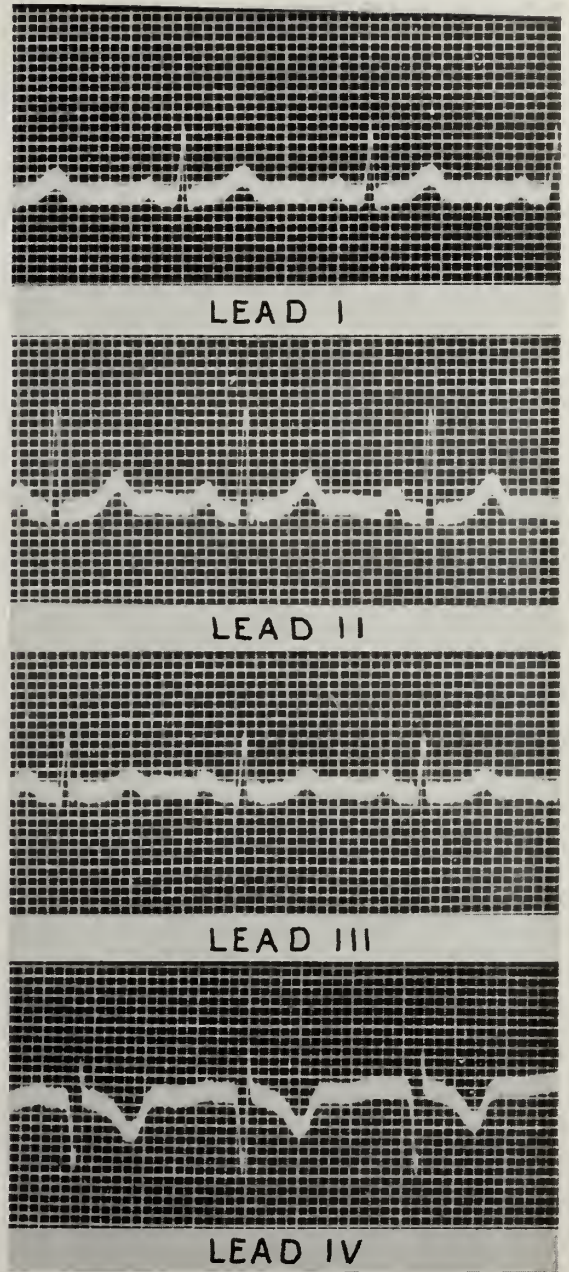


Figure III—Patient, A. H.: March 2, 1938.

for three months, omitted for three months, then resumed for similar intervals. To date, for more than a year, the patient has had no return of the tachycardia. The monopotassium phosphate was discontinued on Nov. 1, 1938.

### Discussion

Potassium phosphate has been used successfully by Levine<sup>10</sup> in the treatment of premature ventricular beats. Because of its influence in prolonging diastole, it was tried in this case of paroxysmal atrioventricular nodal tachycardia. As other medications were used, the benefit from the potassium phosphate cannot be determined.

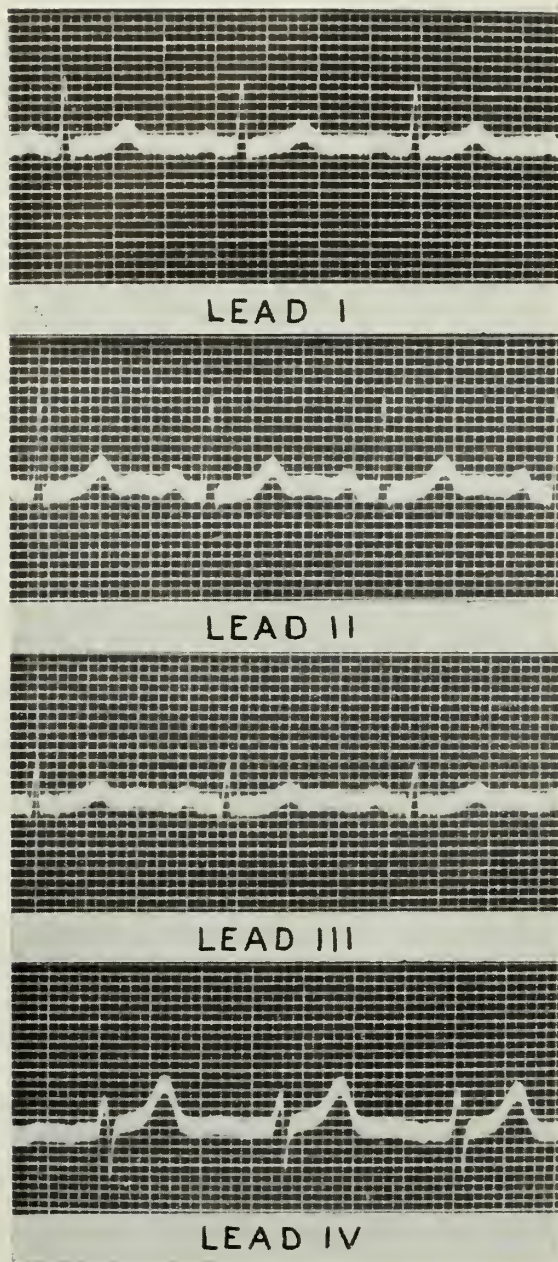


Figure IV—Patient, A. H.: September 7, 1938

Harris and Levin<sup>11</sup> produced a variable lengthening in the diastolic interval (T-P) after administering potassium chloride. When they gave "rather large doses of potassium chloride solution," a remarkable lengthening of diastole resulted without changes in the duration of other intervals. The height of P was diminished in all but one case. The heart rate was definitely reduced and maintained at a slower rate for a considerable time.

The mechanism of this cardiac inhibition is not understood. Howell<sup>12</sup> cites numerous theories that have been advanced by various

workers, but holds that his humoral or chemical theory is more plausible than these, in that his theory includes a selective neurochemical set-up that has been greatly substantiated by experiment on the isolated mammalian heart. He maintains that an inhibitory nerve, the vagus in regard to the heart, inhibits by the production of an inhibitory substance in the tissues. He proposes the theory that the vagus, upon stimulation, causes an organic compound to be broken up with liberation of *diffusible potassium*. This reaction takes place either in the peripheral tissue or at the synapse of the inhibitory nerve. In the heart, these vagal impulses terminate in and around the sinoauricular node, the normal pacemaker, where they break down some organic compound with liberation of potassium in a diffusible form. Experimentally, the limited quantity of circulatory fluid of the isolated mammalian heart showed a perceptible increase in potassium concentration when a prolonged inhibition of that heart was brought about.

As in Harris and Levin's<sup>11</sup> cases, I was able to demonstrate an increased duration of diastole along with abolishment of the low nodal tachycardia. It is suggested that the administration of the potassium salts in this case made the mechanism revert to the normal by causing a generalized inhibition of conduction sensitivity.

This is, of course, a new departure from the accustomed but not always successful drugs used in the treatment of this condition. Hall<sup>5</sup> and Willius<sup>7</sup> have treated it successfully with quinidine sulphate. Willius and Amberg,<sup>6</sup> used quinine sulphate, succeeded in decreasing the rate, but the nodal rhythm persisted at a slower rate. Willius'<sup>7</sup> nurse with paroxysmal nodal tachycardia had an occasional light attack during the sixteen months that the quinidine therapy was carried out. Kerr and Friedlander<sup>13</sup> at first used digitalis without effect, then administered quinidine which changed the nodal into a normal rhythm, though later an atrioventricular dissociation appeared because the nodal rhythm was greater than the sinus rate. Finally, after six days' abstinence from quinidine, the heart reverted to a normal sinus rhythm. White<sup>14</sup> and Cohn<sup>15</sup> and Willius<sup>7</sup> think that the use of digitalis in paroxysmal tachycardia is futile.



Leader<sup>16</sup> warns that digitalis may precipitate nodal rhythm. Schott,<sup>17</sup> on the other hand, thought that small doses of digitalis effected a symptomatic cure, but felt that large doses were actually detrimental. In the slower nodal rhythm, there is probably no great danger of the auricles and ventricles contracting at the same time, thus giving the stoppering effect, but if at a higher rate, such as is found in atrioventricular tachycardia, this stoppering effect must be constantly borne in mind, and it is for this reason that it is very imperative to stop the attack as quickly as possible.

In the case presented, the paroxysmal tachycardia was nodal in origin, with the contractions of the heart controlled by the lower pacemaker, the atrioventricular node. The impulses were sent out so that the sinoauricular node was stimulated before the ventricular complex had traveled throughout the rest of the ventricular system. No definite statement as to the efficacy of potassium phosphate in the treatment of the rare abnormality is ventured at this time, but the favorable course of this case seems to warrant further experimental use of this drug in cases of paroxysmal tachycardia, either auricular or nodal.

#### Summary

Low nodal paroxysmal tachycardia is a rare type of arrhythmia, and can only be diagnosed by electrocardiogram. A case is reported which fulfills White's<sup>9</sup> diagnostic criteria.

This patient was treated with monopotassium phosphate and hormone preparations. She has remained free of attacks for twelve months. The theory is advanced that the monopotassium phosphate was beneficial, and that this benefit resulted from a more favorable ionic dispersion, causing a generalized inhibition of conduction sensitivity.

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## A SIMPLE APPARATUS FOR CONTINUOUS DRAINAGE OF THE SPINAL FLUID IN MENINGITIS AND OTHER CEREBRAL CONDITIONS

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Drainage has been the sheet anchor in many surgical conditions. In different parts of the body an abscess has been drained wherever found.

When such outstanding authorities as Merritt and Fremont-Smith<sup>1</sup> give assurance that in acute purulent meningitis the removal of cerebrospinal fluid by lumbar puncture relieves temporarily the symptoms of increased intracranial pressure, give their conception of acute purulent meningitis as an abscess of the ventriculo-subarachnoid space, that the best treatment of an abscess is free drainage, that lumbar or cistern punctures are the simplest method of effecting drainage and that one or both of these punctures should be repeatedly performed in all cases of acute purulent meningitis, that continuous drainage of the fluid, *if facilities permit*, is especially valuable, then we must accept it as a fact that drainage is helpful and desirable.

As Bagley<sup>2</sup> has proved by animal experimentation that free blood in the subarachnoid space is very irritating to the brain cells and if continued is destructive, then drainage of the bloody spinal fluid should go far toward relieving symptoms and preventing complications that might result from spontaneous subarachnoid hemorrhage, particularly a block.

When Martin Fischer<sup>3</sup> worked out his prize essay on "Oedema"<sup>3</sup> and proved that acids or

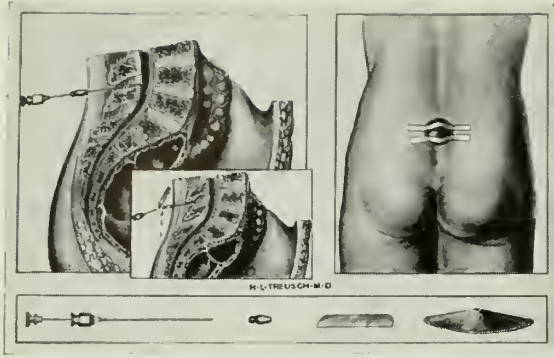


Fig. 1. A simple apparatus for continuous drainage of the spinal fluid in meningitis and other cerebral conditions.

toxins that acted like acids could cause swelling of cells, he established a principle that is as applicable to brain cells as to other cells of the body. Such swelling is forcibly illustrated by neurorretinitis resulting from toxins poured into the system from an apical abscess of a tooth and manifesting a selective affinity for the optic nerves.

Since this clinical entity can be and is brought about by toxins from an apical abscess, then it is not difficult for me to visualize a condition encountered now and then and referred to as cerebritis in which the cerebrum is inflamed from continual irritation of toxins, resulting in headaches, stupor and, often, general convulsions. If drainage removes such an acid-irritating cerebrospinal fluid and if forced fluids dilute the toxins and the drainage reduces any increased intracranial pressure and restores normal cerebral circulation, then it is to be expected that drainage should control these severe cases of convulsions, as it has done in two of my cases.

Early in 1937 the medical world was startled by the announcement of a new substance called prontosil, now called sulfanilamide. Previous to that time, to encounter a case of streptococcic meningitis meant to throw one's hands up in defeat. On the heels of the sulfanilamide product came Whitly, in 1938, announcing that another product, sulfapyridine, protected mice against lethal doses of pneumococci.

So with sulfanilamide in streptococcic meningitis, with sulfapyridine plus pneumococcic serum in pneumococcic meningitis, with meningococcic serum in meningococcic meningitis, the armamentarium was greatly

strengthened and the outlook in these cases became much brighter.

From this preamble it seems that continuous drainage of the cerebrospinal fluid in cases of either one of the three types of acute purulent meningitis, in spontaneous subarachnoid hemorrhage, and in cerebritis accompanied by frequent general convulsions, should be helpful by removing the irritating fluid and by reducing the increased intracranial pressure and improving the circulation of the brain.

Illustrating the practical use of the apparatus for continuous drainage of the cerebrospinal fluid to be described are the following case reports purposely condensed:

*Case 1—Streptococcic Meningitis:* (Seen with Dr. J. C. Ivey.) A young married man, 27 years of age, developed purulent otitis media. His ear drum was incised at a local clinic. The patient was advised to remain in bed a few days, but instead went hunting and fishing. A week later he returned to the clinic in a stupor; he also had fever. He developed the classic symptoms of meningitis. A culture from the spinal fluid showed streptococci, "apparently viridans."

Continuous spinal drainage was instituted, sulfanilamide was given, also 1,000 c.c. of normal salt solution with 5 per cent glucose in vein every 12 hours. In five days the patient's clinical symptoms had cleared up.

Twenty-four hours after the sulfanilamide was discontinued and the drain removed, further fever developed. Sulfanilamide was resumed, with spinal punctures, and the patient made a complete, permanent recovery.

*Case 2—Spontaneous Subarachnoid Hemorrhage:* (Seen with Drs. I. T. Catron and M. P. Pentecost.) A married man, 47 years of age, who had been treated for sometime for hypertension. He was taken sick at his place of business, had driven his automobile home and vomited immediately on reaching home. He became very stuporous, then unconscious, and had remained so for four days. His temperature was 104° F. A tentative diagnosis of spontaneous subarachnoid hemorrhage was made and confirmed when a spinal puncture revealed old blood in the spinal fluid.

Continuous spinal drainage was begun and continued for 48 hours. He was given a retention enema of chloral hydrate to keep him quiet for 24 hours, during which time he was given 1,000 c.c. of normal salt solution with 2.5 per cent glucose as hypodermoclysis. The intravenous method seemed unwise in a case of spontaneous hemorrhage.

In 48 hours he came out of the stupor, improved daily with supportive eliminative treatment and was able to leave the hospital in about two more weeks.

*Case 3—General Convulsions—Probably Cerebritis:* (Seen with Dr. A. O. Linch). A school girl, aged 7, had a convulsion in November, 1938. A prominent pediatrician diagnosed the case as epilepsy. Luminal controlled the convulsions at first but they returned when this drug was discontinued. The convulsions



grew more frequent, the parents estimating that she had at least fifty the week preceding her entry into the hospital. Sedatives failed to ward off the convulsions, so continuous spinal drainage was instituted, with hypodermoclysis of 1,000 c.c. of normal salt solution with 2.5 per cent glucose.

As the convulsions remained under control for 24 hours after the drainage was started, the drain was removed. The child had no further convulsions for a week, when she was transferred to a charity institution.

*Case 4—Cerebritis—General Convulsions:* A married man, aged 39, worker in a creosote plant. He entered the hospital five days previous to my visit, as an emergency. He retired the night before his illness began, feeling well. He developed a severe general convulsion during the night and had had repeated convulsions since.

The spinal fluid was clear; pressure being 150 mm. with an Ayer manometer. His tongue was badly bitten and his lips showed marked herpes. Hemorrhagic bullae developed on both heels.

As sedatives failed to stop the repeated general convulsions, continuous spinal drainage was started, 1,000 c.c. of normal salt solution with 2.5 per cent glucose were given under the skin and calcium gluconate in the veins daily. The patient had no further convulsions and the drain was removed in 72 hours.

The apparatus for continuous spinal drainage, as shown in the illustration, consists of a No. 19 Quincke spinal puncture needle and a scarf pin guard placed on the needle just the reverse of the way it is worn on a scarf pin. After demonstrating that the needle is in the canal, the wire stylet is removed, the scarf pin guard is slid down the needle flush against the skin, then with an ampoule file the needle is filed around its circumference and is then broken off close to the guard, leaving only about  $\frac{1}{2}$  inch of the needle encased in the guard and protruding from the skin.

The spring in the scarf pin guard prevents the spinal puncture needle from being pushed any deeper into the canal.

To prevent any weight being placed directly on the protruding remnant of the spinal puncture needle, a thin metal disc of tin 4 inches in diameter, with a circular opening in its center  $\frac{1}{2}$  inch in diameter, over which a metal tube  $\frac{1}{2}$  inch in diameter and  $\frac{3}{4}$  inch in height has been soldered. The small hollow tube encases the needle with the scarf pin holder attached.

To disseminate the weight of the patient, a rubber kneeling pad cushion, 15 inches in length,  $8\frac{1}{2}$  inches in width and  $\frac{3}{4}$  inch thick, with an opening in its center  $\frac{1}{2}$  inch in diameter, covers the metal disc and surrounds the small metal tube, adding both safety and comfort; a decided improvement

over the metal cover originally used and shown in the illustration.

With this combination strapped snugly to the back, the patient can lie with comfort in any position.

Meticulous care should be exercised in preparing the skin and daily inspection made to ascertain whether or not drainage continues.

If the needle becomes plugged, the wire stylet may be introduced into the needle or salt solution may be injected into the canal; or the needle may be removed and a new one inserted.

The earlier the diagnosis is made and the sooner drainage is started, the better chance there is for satisfactory drainage.

Let it be understood that this is no brief for forced drainage, that it is not offered as a cure-all, but instead a simple apparatus for continuous drainage of the spinal fluid in meningitis and other cerebral conditions.

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## CHOLECYSTITIS\*†

### Indications for Operation

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The management of certain diseases of the gallbladder has been the subject of debate and dispute for many years. Whether it be treatment by medical measures or by surgery, or by cholecystostomy or cholecystectomy, or by immediate or delayed operations in acute infections, will not be settled by this discussion. The question is too big, and is complicated by too many factors to be settled by any one method of treatment. Therefore, the best results will probably be obtained by individualizing each case and determining by study, based on experience, whether or not operation is indicated and, if so, the appropriate time and the procedure best fitted to the case at hand. There is, however, general agreement concerning the necessity of operation in certain types of biliary disease.

*Typhoid Carriers.* The complete elimination of typhoid fever can only be achieved by

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eliminating the carriers of the disease. Since the gallbladder is the source of infection in most of these individuals, and since its removal generally results in a cure of the condition, cholecystectomy should be done as soon as it is proved that the patient is a carrier.

*Chronic Cholecystitis with Stone.* Another definite indication for operation is the finding of stones in the gallbladder. Frequently it is decided to remove such a gallbladder with the hope the general health of the patient will improve, and to prevent the many complications to which stones give rise. The presence of stones is ample evidence in itself of a coexisting cholecystitis and it has been frequently pointed out by Graham<sup>1</sup> and others that a damaged liver, or interlobular hepatitis, is a common accompaniment of cholecystitis, and is due to spread of infection from the gallbladder through the lymphatics. In addition the infection may produce renal and cardiac damage and, even in the absence of severe complications, is often the cause of gastrointestinal complaints ranging from dyspepsia to severe colic. The presence of stones in the gallbladder is frequently diagnosed before any serious complications due to their presence is manifested, and cholecystectomy at this stage can be done with negligible mortality.

Recurrent attacks of gallstone colic, without the complicating factors of common duct obstruction or acute infection, are sufficient reasons for cholecystectomy; to this most physicians and patients will agree. In the complete absence of symptoms, or where they are limited to such mild manifestations as flatulence and dyspepsia, procrastination on the part of the physician and patient often leads to severe complications, and to such damage of the liver, kidneys, and heart, that operation becomes hazardous and often fatal. It is this delay, with consequent rise in mortality, that has given gallbladder surgery a bad name and increased the fear of patients whose gallbladders need surgical attention. Preventive medicine can nowhere be better practiced than in the removal of a gallbladder containing stones, since complications of varying severity will surely occur in a majority of instances.

The occurrence of carcinoma of the gall-

bladder has frequently been mentioned in connection with gallstones, but its importance as a cause of death has rarely been stressed. Nevertheless, according to Graham,<sup>2</sup> it comprises about 10 per cent of all cancer in women. That calculi are of the greatest importance in its etiology is evidenced by the incidence of stone in association with cancer of the organ. Judd and Gray<sup>3</sup> found stones present in 64 per cent of their cases and an incidence as high as 100 per cent has been reported.<sup>4</sup> Here, then, is a definitely precancerous lesion in which 10 per cent of all cancers in women can be prevented by the removal of a gallbladder containing stones. For this reason, if for no other, cholecystectomy should be done.

Common duct stones are found in about 15 per cent of patients with stones in the gallbladder. Contrary to general opinion, a history of jaundice, or of chills and fever, is not necessary for diagnosis, but with the occurrence of both of these the diagnosis is made with greater certainty. The frequency with which duct stones are found in conjunction with gallbladder stones makes careful palpation necessary at every operation, and if the history is suggestive the common duct should be opened for exploration. Operations upon the common duct are hazardous, and the mortality ranges between 10 and 15 per cent. Obviously this complication can be lessened and the mortality lowered by early cholecystectomy with the removal of stones before they enter the ducts.

Acute and chronic pancreatitis are usually the result of gallbladder infection, and frequently follow the impaction of a stone at the ampulla of Vater. An emergency operation may be indicated where symptoms are rapidly progressive, and the mortality in cases of this character is the highest of all types of surgery of the biliary tract. Prolonged drainage of the gallbladder, or the common duct in chronic pancreatitis, with secondary operations to remove stones, is the method of choice, but as in other complications, this can usually be prevented by early removal of the gallbladder.

These and other reasons make it apparent that removal of the gallbladder, chronically infected and containing stones, will prevent

complications of a serious and often fatal nature.

*Chronic Cholecystitis without Stones*—Patients of this type should not be subjected to operation unless their symptoms are clear cut and definite, and unless the cholecystogram shows evidence of a gallbladder which functions improperly or not at all. In this, as in other diseases, it must be remembered that relief of symptoms is in proportion to their severity, and in the absence of gallstones, other organs, particularly the stomach, duodenum, and appendix should be carefully investigated before removal of the gallbladder. Graham and Mackey<sup>5</sup> found that only 60 per cent of their patients were improved following cholecystectomy for stoneless gallbladders. The percentage of those showing improvement or a cure was not increased in the group with a faint or even absent gallbladder shadow in the cholecystogram.

*Acute Cholecystitis.* It is regarding the treatment of this condition that most differences of opinion arise. Some advocate immediate operation, some delay. Some surgeons advocate cholecystectomy while others prefer drainage of the acutely inflamed gallbladder. Statistics, almost without end, have been produced by both groups to strengthen their contentions.

Some writers, Stone and Owings<sup>6</sup> and Heyd,<sup>7</sup> have compared an acutely inflamed gallbladder to acute appendicitis, since the appendix frequently perforates when diseased. This fact is used as a reason for early cholecystectomy in acute cholecystitis. Such reasoning is fallacious and not in keeping with the facts. The physiology and anatomy, and the pathologic conditions which attack the two organs, are entirely different. For example, the gallbladder is in an area where walling-off by omentum and surrounding structures readily takes place, whereas the appendix is usually free in the peritoneal cavity. Moreover, the contents of the gallbladder are usually sterile and inflammation is primarily the result of obstruction, and infection occurs secondarily, whereas the appendix contains the bacteria of the intestine. The gallbladder has the property of distention and absorption which is largely lacking in the appendix. Obstruction of the appendix by a fecalith

rapidly produces distention and subsequent interference with the blood supply leading to gangrene and perforation, but in the gallbladder Kreider<sup>8</sup> has shown that the arrangement of the blood vessels usually prevents this complication. The cystic artery and vein lie separate from the cystic duct at the point where obstruction from stone most often occurs and only their branches are closely incorporated in the gallbladder wall. Moreover, there is a rich anastomotic blood supply derived directly from the liver.

Perforation of the gallbladder into the free peritoneal cavity is undoubtedly a rare condition, but the frequency with which it occurs is subject to considerable disagreement. Graham<sup>9</sup> states that he has never seen it except in association with carcinoma, but admits its possibility. On the other hand, Heuer<sup>10</sup> believes that the incidence of gangrene and perforation in acute cholecystitis is 20 per cent, and it is because of this that early operation is advocated. It is likewise claimed that the operative mortality is greatly lowered by early operation, one surgeon, Clute,<sup>11</sup> going so far as to say that in his experience there is no mortality. This is denied by others.

The basis of this whole discussion is the lowering of the mortality, and whether or not this is best accomplished by immediate or delayed operation. Having seen the gallbladder perforate into the free peritoneal cavity on only one occasion, and having seen the acute inflammatory process subside in numerous instances, I advocate delaying operative treatment until the acute symptoms subside. However, this statement is modified by saying that where there is evidence of a rapid spread of infection, or gangrene, empyema, or perforation, the operation is imperative. These sequelae are manifest by a rising temperature, increased pulse rate, and leukocytosis, and by increasing pain and tenderness. The surgeon who takes the view that most such pathologic conditions will subside, and who is willing to carefully watch the progress or regression of the disease, must also realize that he must intervene promptly if the disease is progressing. If improvement takes place and the acute inflammation subsides, I believe it is preferable to wait for several weeks before operation so that the

tissues may return as nearly as possible to normal.

If, for any of the reasons just stated, operation is decided upon, the type of procedure is of considerable importance. In some instances, cholecystectomy can be performed with ease, but as a rule cholecystostomy is preferable in gangrene, empyema, or where inflammation has obliterated the anatomic landmarks. Old and debilitated patients, and they are in the majority of those with gallbladder disease, should be treated by drainage of the organ rather than by its removal. In some instances the operation is best done in two stages to prevent the spread of infection.

It must be remembered that gallbladder surgery is not only hazardous but, even in the absence of acute infection, it frequently presents great technical difficulties. Not the least of these is the frequency with which anomalies of the cyst duct, and the hepatic and cystic arteries are encountered. Accessory bile ducts are present in 15 per cent of patients, and variations in the origin and course and position of the blood vessels occur in one-third of the cases operated upon (Flint<sup>12</sup>). Injury to the common or hepatic ducts may produce a fistula or stricture, and is often fatal. Following operation there are fatalities which are classed as "liver-shock and death." These patients rarely regain consciousness, the temperature and pulse rate rise rapidly, and death usually occurs within two days. While the cause of this condition has not been determined in every instance, it is known to follow ligation of the right hepatic artery and, in my opinion, this is the usual primary cause. It is, therefore, essential that the position and relations of the bile ducts and the vessels be clearly defined before the gallbladder is removed. In the presence of the edema and congestion of acute cholecystitis this can rarely be done, and, for this reason, if for no other, acute inflammatory processes should be allowed to subside, or, if operation is done at this stage, then drainage is preferred to removal.

There are other factors of importance in gallbladder surgery aside from the actual operation. Preoperative ingestion of fluids and glucose to the point of saturation should be done routinely when possible, and should be

continued intravenously after the operation. Blood transfusion before and after operation is the best precaution against bleeding in jaundiced patients and should always be done. Quick and others<sup>13</sup> have recently shown that vitamin K, extracted from alfalfa, will reduce the bleeding time of patients with obstructive jaundice. While still in the experimental stage, there is sufficient clinical evidence available to show that this vitamin will prove of great value to those patients. Therefore, for proper preparation, delay in operating is also frequently indicated.

In summary, I wish to emphasize that the gallbladder containing stones should be removed early and thus prevent the serious complications of infection, obstruction, and cancer. I believe that delay should be practiced in the treatment of the acute cholecystitis, if the symptoms are subsiding, but in rapid fulminating attacks immediate operation, usually cholecystostomy, is advisable.

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The June issue of Venereal Disease Information published by the U. S. Public Health Service stated that, "The problem of scarcity of trained personnel to carry on the rapidly expanding syphilis control program may be solve by four-week-long 'refresher' courses."

"The short course is designed for and, we believe, offers much to the health officer and physician whose duties involve many activities in addition to syphilis control work." Such a post-graduate course may be obtained at Vanderbilt University School of Medicine, Nashville, Tenn.

"The chief objective of the course is to provide students with an opportunity for intensive study of diagnostic and therapeutic problems in clinical syphilis and an introduction to the epidemiologic features of syphilis control.



## THE WORK OF THE FEDERAL FOOD AND DRUG ADMINISTRATION\*

THEODORE C. KLUMPP, M.D.  
Washington, D. C.

*Mr. President and Members of the  
House of Delegates:*

I want to thank you, Mr. President, and Dr. Glenville Giddings for the privilege of being present to discuss for a few minutes the work of the Federal Food and Drug Administration.

With the increasing interest of the Federal government in matters of health and medical practice, you may be constrained to ask, "Where does the Food and Drug Administration fit into the picture?"

The Federal Food and Drug Administration is a small but old organization, a unit in the Department of Agriculture. It began to function in 1906 and has been doing business at the same stand ever since. Its employees from the chief down are under civil service. Its duty is to serve the public by watching over the foods and drugs and new devices and cosmetics that move in interstate commerce, under the authority of the Food and Drugs Act of 1906 and the new Food, Drug and Cosmetic Act of 1938.

On June 25 last the President signed the new Food, Drug and Cosmetic Act. This law, while it leaves much to be desired, marks a definite advance over the old 1906 law, which is now as antiquated as an automobile of that vintage.

The provisions relating to new drugs, dangerous drugs and devices, and poisonous cosmetics became effective with the enactment of the new law; the other provisions not until June 25, 1939, unless Congress in the meantime postpones the effective date.

Since last June we have passed on some 400 new drug applications and have under investigation over 120 at the present time. This places on our shoulders a great responsibility. It is one which we cannot properly discharge unless we have made available to us the experiences and findings of those who have tested the new drugs under consideration.

†Chief, Drug Division, Food and Drug Administration, Washington, D. C.

\*Address before the House of Delegates of the Medical Association of Georgia, Atlanta, April 25, 1939.

Obviously it would be impossible for us to make conclusive laboratory pharmacological and clinical tests of every drug before releasing it. That would be a physical impossibility and it would, after all, represent the experiences of only a single group of investigators. We must have made available to us the findings of all those who have special experience in testing these drugs and it is only under such conditions that we can do a worthwhile job in protecting the public from new, untried or dangerous drugs. I hope that we may count on your cooperation in this new but tremendously important task.

Under the dangerous drug, devices and cosmetic section of the new law we have taken some 209 legal actions. In addition to these there are a significant number which have not yet reached the court dockets. Among those products against which we have proceeded may be mentioned Causalin, B. C., Bromo Seltzer, Goody's Headache Powder, B. B. Headache Powder, Stanback Headache Powder, E. E. Powders, Marmola and other preparations containing thyroid, paraphenylene diamine eye brow and lash dyes, silver salt and sulfate eye lash and eye brow dyes such as Roux and Spiro, Sedormid, and Syn-O-Scope, a device for blowing medicated vapors into the nasal cavities and into the eustachian tube as well. We have issued such notices to the effect that sulfanilamide and its derivatives, cinchophen and aminopyrine are dangerous drugs when indiscriminately distributed to the public. We have likewise taken action against dinitrophenol and dinitroresol products, regardless of the manner in which these highly toxic drugs are intended to be used.

While the provision in the law relating to dangerous drugs is admirable, it is not perfect. Nevertheless, we feel certain that we can do a great deal toward protecting the public against dangerous drugs if we have the full cooperation of the medical profession. I cannot emphasize too strongly that this worthy endeavor depends upon your interest in what we are trying to do. We are not magicians nor do we have any occult powers by which we can discover or determine when a drug is dangerous. We must rely on your experiences, your observations and your opinions. We

expect to come to you individually and collectively to learn about drugs and to find out which ones are deleterious. Unfortunately, it is customary at the present time for physicians to publish only case reports of injury from drugs when the injurious effect of the drug is first discovered. After the initial publications, hundreds and even thousands of additional cases of injury may be seen by the medical profession but these are rarely reported, because the matter is already on record. This custom is not very helpful to us, because it is necessary for us to know the frequency with which a given drug is capable of causing injury and the extent and magnitude of the problem. May I ask you to make known, by means of wider publication or by direct communication with us, those drugs with which you have had unfavorable experiences. Incidentally, the more effective we can be in eliminating worthless, dangerous and misbranded drugs, the more inclined will the public be to turn to their physicians for advice and treatment, rather than to druggists.

May I ask you to keep accurate records and make a searching investigation into the circumstances relating to each drug poisoning. It is not sufficient to stop when you have made a diagnosis of acetanilid poisoning, for example. As a civic responsibility, in my judgment, you should ascertain what preparation the patient used, where he obtained it, how he took it, and a complete account of the dosage and duration with which he took it. It is important to know whether the patient is an addict to the drug.

In connection with this whole problem, we are, at the present time, particularly interested in preparations containing acetanilid and bromides. I mentioned previously that we had seized a number of products, among them B. C. and Bromo Seltzer. I am sure you agree that potent drugs, containing large amounts of acetanilid and bromide, should not be sold over the ice cream counter, as if they were just another fizz concoction in the same class as ice cream soda. We have taken action against products in this class because we have found throughout the whole country deplorable consequences resulting from these drugs. It is important that we see the whole picture and the extent of this problem. If any of you

have seen instances of injury from Bromo Seltzer and other acetanilid-bromide preparations, and our experiences in this field make me certain that you have, I should very much appreciate a report from you concerning such cases. A brief note addressed to Drug Division, Food and Drug Administration, U. S. Department of Agriculture, Washington, D. C., or a telephone call to our local station here in Atlanta, will be very much appreciated.

May I congratulate the Medical Association of Georgia on its successful sponsorship of your new dangerous drug law. It is a big step in the right direction.

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### CORONARY OCCLUSION\*

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GEORGE A. TRAYLOR, M.D.

*Augusta*

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It is believed we all agree that sound principles underlie correct practices. In 1912, Sir William Osler wrote in the Eighth Edition of his *Principles and Practice of Medicine*: "A knowledge of the changes produced in the myocardium by disease of the coronary vessels gives a key to the understanding of many problems in cardiac pathology. The terminal branches of the coronary vessels are end arteries; that is, the communication between neighboring branches is through capillaries only. . . . The vessels of Thebesius, which open from the ventricles and auricles into a system of fine branches and thus communicate with the cardiac capillaries and coronary veins, may be capable of feeding the myocardium sufficiently to keep it alive even when the coronary arteries are occluded. The blocking of one of these vessels by a thrombus or an embolus leads usually to a condition which is known as:

"(a) *Anemic necrosis*, or white infarct. When this does not occur the reason may be sought in (1) the existence of abnormal anastomoses, which by their presence take the coronary system out of the group of end arteries; or (2) the vicarious flow through the vessels of Thebesius and the coronary veins. The condition is most commonly seen in the

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\*Address before the nineteenth annual session of the Surgical Association of the Atlanta & West Point Railroad, Western Railway of Alabama, and the Georgia Railroad, Atlanta, March 21, 1939.

left ventricle and in the sputum, in the territory of distribution of the anterior coronary artery. . . . Rupture of the heart may be associated with anemic necrosis.

"(b) The second important effect of coronary artery disease upon the myocardium is seen in the production of *fibrous myocarditis*. This may result from gradual transformation of areas of anemic necrosis. More commonly it is caused by the narrowing of a coronary branch in a process of obliterative endarteritis. . . . Hypertrophy of the heart is commonly associated with this degeneration. It is the invariable precursor of aneurysm of the heart.

"(c) *Sudden Death in Coronary Artery Disease*. Complete obliteration of one coronary artery, if produced suddenly, is usually fatal. When induced slowly, either by arteriosclerosis at the orifice of the artery at the root of the aorta or by an obliterating endarteritis in the course of the vessel, the circulation may be carried on through the other vessel. Sudden death is not uncommon, owing to thrombosis of a vessel which has become narrowed by sclerosis. *In medico-legal cases it is a point of primary importance to remember that this is one of the common causes of sudden death*. This condition should be carefully sought for, inasmuch as it may be the sole lesion, except a general, sometimes slight, arteriosclerosis. . . .

"(d) *Septic Infarcts*. In pyemia the smaller branches of the coronary arteries may be blocked with emboli which give rise to infectious or septic infarcts in the myocardium in the form of abscesses, varying in size from a pea to a pin's head. These may not cause any disturbance, but when large they may perforate into the ventricle or into the pericardium, forming what has been called acute ulcer of the heart."<sup>1</sup>

I have been unable to find anything that explains so clearly and succinctly the results one may expect to encounter from coronary sclerosis. Notwithstanding this was written twenty-seven years ago, it has taken the general run of our profession quite a long time to grasp the association of this abnormal vascular condition with the symptom-complex angina pectoris. Up until a few years ago practically every sudden death was ascribed to "acute indigestion"; even today some phy-

sicians who have had unusual advantages still label the sudden fatal illnesses of some of our prominent citizens under the same caption. It is only since the general use of the electrocardiograph that medical men have become more interested in giving the sufferers with coronary occlusion the proper care. It is not a credit to our intelligence, diagnostic acumen or therapeutic ability that we fail to use the senses with which nature has endowed us; neglect to apply the knowledge gained through experience, the pathology of the living and the dead house, but allow some gadget to inform us the nature of the patient's illness. Laboratory findings and diagnostic instruments are all right in their places but should not be allowed to take the place of a painstaking inquiry into the sufferer's present complaint and the prosecution of a thorough physical examination. Are our medical schools devoting too much time to training men in the use of instruments and laboratory procedures, or are they turning out physicians to treat the ill and injured?

Statisticians inform us that twice as many physicians as lawyers die of coronary occlusion, and that four times as many in our profession succumb to the same cause as ordinary laborers; we should be interested if for no other reason than a selfish one. The importance of the recognition of this condition, and of those physical states which presage its occurrence is self-evident; and if we could, with some degree of certainty, predict its occurrence the problem of evaluation and judicious handling would be much simplified. If this premise be admitted with regard to the population in general then its safety significance, not to mention its relation to health in general, assumes added importance in railway practice.

Criticism might be voiced at considering such a subject before a group of railway surgeons, but we should ever keep in mind that industrial medicine connotes far more than reparative surgery, and the physician who is well versed in medicine as it pertains to industry is indeed well informed in his profession.

The stress and strain involved in modern high speed train operation may be expected to make increasing demands upon the cardiovascular-renal apparatus of those responsible



for their safe transit. Recently I was told by a retired locomotive engineer of a midwestern railroad that the cylinder rings of the steam locomotives used to pull the "Minnesota 400" were subjected to so much wear and tear they had to be replaced every ten days. Reasoning from analogy, such speeds must cause like degenerations in the human machine.

Quite a proportion of people have always died of the effects of arteriosclerosis upon the heart. One of the most celebrated victims was John Hunter. He had his first seizure in 1773 and many others during the remaining twenty years of his life. He is credited with saying "his life was in the hands of any rascal who chose to worry him." When Jena performed the autopsy he found calcification of the coronary vessels.

Engineers have died at the throttle and trainmen have suffered inexplicable injuries, in which the causes of the accidents were overshadowed by the resulting traumas. Only an interested attention to the patient's complaints and symptoms, careful examinations or post-mortems may reveal that the prime cause of death or accident was coronary occlusion; and, possibly thereby, prevent the corporation from being penalized financially.

The extra-pectoral features of an anginal attack should ever be kept in mind, and emphasis placed upon the symptomatic resemblance of some cases of coronary occlusion to surgical conditions. Dr. James B. Herrick, writing in the *Journal of the American Medical Association* in 1912, realized the importance of this differentiation with these words: "Nausea, vomiting, with belching of gas are common. There may be tympany. Ashy countenance, cold sweat, and feeble pulse complete the picture of collapse. The attention of the patient and the physician as well may, therefore, be strongly focused on the abdomen, and some serious abdominal accident be regarded as the cause of the sudden pain, nausea and collapse."

One of my good friends recently died of coronary occlusion, with a diagnosis by his physician of lumbago. Within recent years expert diagnosticians have been preaching the mimicry of *angina abdominis* to subdiaphragmatic visceral lesions. Roentgenologists recite

cases referred to them with a diagnosis of some disease of the shoulder or chest in which the cause of the symptoms proved to be occlusion of a coronary artery; and claim that complete roentgenologic examination is as well suited to differentiate these conditions as any single measure at our disposal. It is not my desire to disparage the aid these excellent gentlemen give us, but would not a careful history and physical examination make unnecessary this added expense? The astute and honest surgeon no longer operates on some one else's diagnosis. Several years ago a man was brought to an Augusta surgeon with a diagnosis of calculous cholecystitis, but the consultant was not satisfied; the man had a very hairy chest, and the friction of the hair on the bell of the stethoscope mimicked the rub one hears in some cases of coronary occlusion. The chest was shaved, the friction rub was still audible; and, in conjunction with other differential signs, the surgeon refused to operate. I recently saw a highly nervous man whose complaint had been diagnosed coronary occlusion, and it was later proved he had a duodenal ulcer. However, the opposite mistake is more often made; that is, calling coronary thrombosis something else.

General or peripheral arteriosclerosis and coronary disease are often associated, though they frequently occur independently. Healthy, or relatively healthy coronary arteries may be blocked by thrombi and emboli; and, with our present means of diagnosis, it is practically impossible to predict its occurrence or non-occurrence. "Gradual narrowing of one or more coronary arteries with atheromatous degeneration may be a local manifestation of a generalized vascular sclerosis. In such cases the x-ray may reveal peripheral sclerosis, and calcification in the aorta and iliacs. In these early cases the heart is not usually enlarged, unless there is associated hypertension. Roentgenoscopically, the amplitude of ventricular contractions is diminished."<sup>3</sup>

The following is an abstract of an obituary notice recently seen in *The New York Times*, and the wording is not uncommon: "E. J. Y., died yesterday afternoon. . . . He was 64 years old. Mr. Y. apparently had been in good health recently, but on Monday night

he complained of a cold in his chest. On Tuesday he received treatment from a nose and throat specialist. That night he suffered a slight attack of indigestion, which was not uncommon with him. The next morning he felt better. Just before luncheon he was stricken with a severe coughing spell, which was followed by collapse. Dr. G. was called, but Mr. Y. died before the physician arrived. Dr. G. ascribed his death to a heart attack. *A physical examination a week ago disclosed no sign of a heart malady.*" (Italics supplied.)

The cause of atheroma is unknown; we know the process begins in the intima, next involves the media and finally the adventitia. It is doubtful whether the coronary artery disease of senile life can ever be controlled; but it is to be hoped that some progress can be made in the prevention of such disease in those who have not reached old age.

It is my opinion that arteriosclerosis is a reaction of the vascular wall to a mechanical irritant—a low grade inflammatory process. Today it isn't fashionable to teach principles, but I recall most vividly how my scholarly teacher, the late Dr. William H. Dougherty, Jr., tried to impress upon us the importance of having as thorough knowledge as we could assimilate of the process of inflammation. We were told there were four causes: mechanical, chemical, thermal and bacterial; that the essential nature of the inflammatory process was the same in every tissue, modified by the particular structure invaded, and that the reaction depended upon many factors, chiefly the virulence of the irritant and the resistance of the tissues. In the hurry and bustle of our rather selfish lives heightened arterial tensions are sure to follow—the mechanical cause, with its first result. This heightened arterial tension causes a low grade, chronic irritation, first of the intima; and, later, of the other vascular coats. Nature, in order to strengthen the defect caused, deposits lime salts: just as calcification of tubercle occurs, or engineers recommend rip-rapping of the dikes adjoining our rivers in order that flood waters may not carry them away. A beautiful example of this "factor of safety" is found on page 438 of Sir Jonathan Meakins' Practice of Medicine. It is a photograph of a heart showing a large cal-

cified plaque, 8 cm. in diameter, 3 mm. thick, on the anterior half of the left ventricle, a late result of infarction of the myocardium. This photograph was taken after removal of the heart at autopsy by Dr. James R. Redfearn, of Albany, Ga. Dr. Redfearn informed me this man lived for several years after he discovered his heart malady, and that he was able to perform light work up until a short time before his fatal illness. This and like processes are probably not purposive in nature, but certainly have the appearance of adaptability.

Arteriosclerosis is progressive, and incurable, by any means now at our disposal. Amelioration is possible for a time, but its results inevitable. The only hope I am able to envision is to educate people to lead more placid lives; and thereby, possibly, prevent the occurrence of arterial calcification.

A search for early evidences of hypertension, and those stigmata of hereditary and constitutional makeup which presage the occurrence of arterial degeneration places a responsibility upon those who examine prospective employees for railway service.

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It is generally conceded that, among acute infections, rheumatic fever is the most common cause of heart block. There have been very few reports of cases in which heart block occurred during or immediately following pneumonia. The majority of these patients have recovered from the infection and there has been a subsequent disappearance of the arrhythmia. No cases of heart block associated with peritonitis could be found in the available literature. EDWARD V. SWIFT and HARRY L. SMITH, Rochester, Minn. (*Journal A. M. A.*, Dec. 18, 1937), cite such a case. In this case a complete heart block developed during the course of peritonitis, pleuritis and pneumonia. The patient died suddenly while recovering from the infection. Necropsy revealed a marked acute peritonitis, acute pleuritis of the right lower lobe and a minimal amount of residual pneumonia. The lesions of the lung and pleura were definitely older than those of the peritoneum. A gram-positive diplococcus was identified in the pleural and peritoneal exudates but cultures were negative. In serial sections of the conduction system there were slight changes in the auriculoventricular node, which became more pronounced as the conduction system was followed toward its terminal portions. These changes were in the form of apparent edema.



ABSTRACT OF THE  
PROCEEDINGS OF THE HOUSE OF DELEGATES  
OF THE  
MEDICAL ASSOCIATION OF GEORGIA  
APRIL 25-28, 1939

**PRESIDENT:** Dr. Grady N. Coker was commended for the able manner in which he has conducted the duties of the office. The Association approved his recommendation to continue its help and cooperation with the State Department of Public Health, and urged its members to advise the people of the various counties of the health benefits which may be obtained by securing the aid of their respective counties to supply funds for medical and hospital care of the indigent sick, and that better facilities be made available in the rural communities for those unable to pay for medical and hospital care.

**PRESIDENT-ELECT:** The recommendations of Dr. Wm. H. Myers were approved. All members and agencies of the Association were urged to press every opportunity to promote public health. In the upheaval and discord which prevails, medicine like many other groups of society would be destroyed if we quietly submit to such schemes. The necessity for the general practitioner cannot be overestimated. The county medical society is the most important unit of organized medicine. Post-graduate work has not received the support it deserves. Asked chairmen of committees to report to the President quarterly.

**SECRETARY-TREASURER:** The House expressed its pleasure with the improved form and subject matter used by Dr. Edgar D. Shanks in *The Journal*. Commended the excellent work by which the membership in the Association has been increased to the peak of its history. Approved the work which had been done for the Public Relations Bureau. Gratified with the bills and constitutional amendment enacted into law in the past few years.

**PUBLIC RELATIONS BUREAU:** The Bureau was authorized to function under its present organization and personnel. That it is important for the activities and supervision of the Bureau to continue under the direction of medical men. That funds are available for only restricted educational purposes and should be used to the best advantage to advise the people of the necessities of public health work and medical care.

**HOSPITAL INSURANCE:** It was agreed that excellent service is being rendered the people by associations formed to comply with the law and to promote hospital insurance and that nothing should be done to interfere with future progress. Such study of the hospital insurance plan as may be necessary should be conducted by the Committee on Public Policy and Legislation.

**COUNTY MEDICAL SOCIETIES:** That the component county medical societies are the most important units of organized medicine, that their members should attend all meetings and elect their most energetic and experienced members to serve as secretaries.

**COUNTY SOCIETIES—PUBLIC RELATIONS BUREAU:** Since there are many unjust and unreasonable attacks being made on the medical profession, each county society is urged to organize a Public Relations Bureau to combat such attacks in local communities and to assist the Department of Public Welfare.

**POST-GRADUATE STUDY:** As there are several agencies in the State engaged in post-graduate work and no cooperation between them, all such agencies are requested to co-ordinate their work and organize their activities under one group.

**COUNCIL:** The report of Dr. J. A. Redfearn, chairman, was adopted with his recommendations that all officers of the Association and county medical societies work to enroll every eligible physician in the State as a member. That the Public Relations Bureau continue its activities to teach the people the preventive and curative value of medicine. That renewed efforts be made to educate the people in the benefits they may receive by securing the enactment of the Basic Science Bill into law. That the people with the condition known as psychoneurosis be given more attention, and that physicians should have more instructions bearing on the problem of functional nerve disorders.

**COMMITTEE ON SCIENTIFIC WORK:** The report of the chairman of the committee was adopted and the committee was complimented for the excellent work in making up the program.

**COMMITTEE ON PUBLIC POLICY AND LEGISLATION:** The report of the chairman was approved with acknowledgment of the indebtedness to the committee for the large amount of work it had done to secure the enactment of laws for the benefit of the public health of the people of this State. Each county medical society was urged to press its county commissioners to levy taxes for the medical and hospital care of their indigent sick.

**COMMITTEE ON MEDICAL DEFENSE:** The report of the chairman was adopted and the committee was commended for the excellent service given members of the Association when sued or threatened with suit for alleged malpractice.

**HOSPITAL COMMITTEE:** Approved the report of its chairman and suggested that each hospital work out its own problems.

**CANCER COMMISSION:** The report of its chairman was adopted and the Association acknowledged its huge debt of gratitude to its chairman for his untiring efforts and the success of his work in cancer control.

**MEDICAL HISTORY OF GEORGIA:** Recommendations by its chairman were adopted and members of the Association were urged to help and cooperate with this committee to obtain historical data.

**CALHOUN LECTURESHIP:** The report of its chairman was adopted and the committee was complimented for the high type of men secured to deliver the lectures.

**COMMITTEE ON AWARDS:** The report of its chairman was adopted with regrets that there were no contestants.

**ADVISORY—STATE BOARD OF HEALTH:** The report of its chairman was adopted and gratitude was expressed for the excellent work of the committee, cooperation by and with the State Board of Health.

**ADVISORY—STATE BOARD OF HEALTH, SOCIAL SECURITY ACT:** The report of its chairman was approved. The procedure by the Board was approved by the committee.

**ADVISORY—ORTHOPEDICS, STATE DEPARTMENT OF PUBLIC WELFARE:** The report of its chairman was endorsed. Some skepticism was expressed concern-



ing the methods of procedure as that which might lead to some form of socialized medicine.

**ADVISORY—OPHTHALMOLOGY, STATE DEPARTMENT OF PUBLIC WELFARE:** The report of its chairman was approved with regrets that funds have been so limited that only a small amount of work had been accomplished, and a plea for more substantial appropriations for this department.

**ADVISORY—WOMAN'S AUXILIARY:** The report of the chairman was adopted with expressions of appreciation for the work of the Auxiliary and the successful administration of its president, Mrs. Warren A. Coleman, Eastman.

**MEDICAL ECONOMICS:** The report of the chairman was adopted with the recommendation that each county in the State formulate some plan to provide medical and hospital care for the low wage earning class and that the recommendations of the American Medical Association be followed.

**INDUSTRIAL RELATIONS:** The report of the chairman was adopted with the statement that the relations between the physicians of the State and the Industrial Relations Board have been cordial and that suggestions by the committee had been accepted in good faith.

**ARMY MEDICAL LIBRARY:** S. B. 3919 and H. B. 10455 to appropriate funds for erecting a new building to house the Army Medical Library and Museum in Washington, D. C., were commended.

**MATERNAL MORTALITY AND INFANT DEATHS:** The report by its chairman was adopted and the committee was complimented for its excellent work, and recommendations were made that its work be continued.

**TUBERCULOSIS CONTROL:** The report of the chairman was adopted and recommendations were made that the committee continue its present duties.

**SCIENTIFIC EXHIBIT:** The report of the chairman was adopted and the committee was congratulated for the excellent exhibit and continuous improvement from year to year in the number and value of the exhibits.

**FINANCIAL:** The chairman of the Council reported that the itemized statement of the Secretary-Treasurer had been checked by a committee of the Council and found to be accurate and proper in every respect.

**APPROPRIATION:** Dues for 1940 are to be \$7, the same as for 1939. Expenses of \$150 are to be paid for the Cancer Commission. Delegates to the American Medical Association and the Secretary-Treasurer are to be paid \$150 each on expenses to attend the St. Louis session, May 15-19, 1939. The budget for the Secretary-Treasurer is to remain the same as for 1938-1939.

**DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION:** The statement by Dr. C. W. Roberts, selected to make the report, was adopted. A miniature sketch of the proceedings follows:

The membership in the A. M. A. is the largest in its history.

In recent years, Hygeia has been introduced, post-graduate medical education developed, a number of bureaus and councils set up and special journals published.

Georgia delegates introduced a resolution in reference to showing the film, "Birth of a Baby"; the House believes the film to be of unquestioned educational value but should be shown in theaters to only adult audiences with and after the approval of the

county medical society where the exhibit is to be on display.

Dr. Rudolph Matas, New Orleans, was the first to receive the Distinguished Service Award as given under an amendment to the Constitution and By-Laws adopted in 1937.

A new set up in the Association's publicity program was suggested.

The Association favored the creation of a Federal Department of Public Health with cabinet rating and opposed a Federal Department of Public Welfare as created in the Reorganization Bill.

Rigid visual standards by states were recommended before automobile drivers' licenses were issued.

The House reaffirmed that the Association was the only body qualified to speak for the medical profession.

A resolution to legalize birth-control advice was referred to a committee.

Legislation to restrict animal experimentation was opposed.

Studies were recommended to establish a legally accepted sobriety test.

Congress was thanked for authorizing a new building for the Army Medical Library and Museum.

The bombing of hospitals, ambulances and helpless civilians by any nation was condemned.

If constituent associations adopt fee schedules, a study by the Bureau of Medical Economics to provide ethical qualities and guiding principles was approved.

State associations were urged to obtain memberships on Compensation Commissions and Industrial Boards.

Listing of the names of physicians in commercial directories was condemned.

To supply radium for use on a patient when not available for examination by the physician who furnishes it was condemned.

A fee schedule covering work in disaster relief was refused.

County medical societies were urged to develop plans to provide medical care for the indigent sick.

Group hospitalization was approved but all medical benefits were excluded; when medical care is included, it is to be paid for on the cash indemnity plan directly to the beneficiary.

Medical indigency was defined as a person being unable in the place where he resides to obtain on his own resources, medical, dental, nursing, hospital, pharmaceutical and therapeutic appliance care for himself and dependents without depriving himself or dependents of necessary food, clothing, shelter and similar necessities of life.

**BY-LAWS, AMENDED:** Strike from Chapter I all of Sections 4 and 5; substitute a new section to be known as Section 4; also change the number of the present Section 6 of Chapter I to Section 5.

**SECTION 4: SPECIAL MEMBERSHIPS.** In addition to regular members, component societies may elect to membership in their organizations, for membership in this Association, the following groups of members:

(a) **HONORARY MEMBERS.** Any member for old age, length of service, or other good reasons, may be elected an honorary member of his county medical society, for membership in this Association. Such member shall, after election, be issued a certificate of honorary membership in this Association.

Non-resident physicians and resident or non-resident lay persons who have distinguished themselves in fields of endeavor devoted to the advancement of human welfare, may be nominated by county medical societies, or by the House of Delegates of this Association, for honorary membership in this Association. A county medical society shall not nominate for this class of membership more than one person each year. The name of such person shall be sent to the Secretary-Treasurer of this Association thirty days in advance of the annual session. Such person shall be issued an appropriate certificate of honorary membership in this Association if, and when, he is elected to honorary membership by this Association.

(b) ASSOCIATE MEMBERS. Eligible to this classification are (1) those regular members of component societies to whom the payment of dues would be an undue hardship; (2) interns, and (3) commissioned medical officers of the United States Army, the United States Navy and the United States Public Health Service while actively engaged in their respective services or if they have been retired on account of age or physical disability, or, after long and honorable service, under the provisions of an Act of Congress.

(c) HONORARY AND ASSOCIATE MEMBERS shall not be subject to the payment of dues to the State Association. They shall enjoy the privilege of full participation in the scientific, social and educational activities of this Association. They shall not vote or hold office and do not receive *The Journal* or benefits of Medical Defense.

AMENDMENT TO CHAPTER VII, SECTION 5 of the By-Laws of the Medical Association of Georgia by inserting after the words "shall be eligible to membership" a new sentence. The said Section 5 of Chapter VII, as amended, reads as follows:

SECTION 5. Each county medical society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Physicians who have been legally registered in other states or who have been licensed by the National Board of Medical Examiners or who are employed as teachers in the medical schools, or are in the service of the State, a county, a municipality, or the United States Government other than the regular medical corps of the United States Army, the United States Navy and the United States Public Health Service, may be accepted for membership in county medical societies, for membership in this Association, provided they meet the requirements of regular membership. Before a charter is issued to any county medical society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

PUBLIC RELATIONS COUNSEL: The House of Delegates objected to the employment of counsel to promote the activities of the Public Relations Bureau because sufficient funds were not available for such expense and in the belief that the Bureau should remain under the direction and supervision of medical men.

RADIOLOGICAL SOCIETY: The resolutions submitted by the State Radiological Society were approved in principle but their practical application should be

worked out through proper channels. The subject of the resolutions is to prohibit the practice of medicine in Georgia by certain institutions in providing radiologic services to hospitalized and non-hospitalized patients for pecuniary considerations.

## THE FIRST MARINE HOSPITAL

By the very nature of his vocation, the seaman is usually unprepared to meet the pecuniary requirements of an illness or disability of more than the briefest duration. Therefore, medical care for sick and injured sailors have always presented a problem to maritime countries.

In 1782 the legislature of Virginia, says Dr. John W. Trask, Medical Director, United States Public Health Service, ("Early State Hospitals for Seamen," *Public Health Reports*, May 26, 1939), in an effort to meet the need of seamen, "passed an act providing that the several and respective naval officers within the Commonwealth should receive from the captains or commanders of vessels, at the time of their entrance or clearance, one shilling for every seaman on board their vessels. The money thus collected was to be applied towards building and supporting a hospital for disabled seamen and mariners."

Five years later, in 1787, the Virginia Legislature passed an act providing for the building of a marine hospital and authorizing the Governor to appoint seven commissioners for the purpose of erecting a hospital for aged, sick, and disabled seamen at Washington in the County of Norfolk. They were to provide a surgeon, keeper, and matron with necessary nurses, and all necessities for their comfortable support and maintenance. All expenses were to be paid out of the "Marine fund."

"Some difficulty was evidently encountered," according to Dr. Trask's article, "either in the construction or maintenance of the hospital, as the Legislature passed an act on December 24, 1790, providing that the Commissioners appointed for the purpose of establishing the marine hospital be authorized to dispose of the said marine hospital to the Congress of the United States for the purpose of its original institution. Two years later the General Assembly passed an act, the purpose of which was to prevent masters of ships



## THE PRESIDENT'S PAGE

### GOING FORWARD

A great many counties in Georgia have not now and have never had any hospital facilities for their indigent citizens, nor have they had any way of paying for such service in neighboring counties. The result is that a burden has been borne by hospitals in other counties which they could ill afford to assume. When a seriously ill person is brought to the door of any hospital, tradition and a care for one's fellowman prompt the hospital management to open its doors to him.

Many of our hospitals have been kept filled with patients who have no claim upon them. There are several counties near Savannah which have sent hundreds of charity patients to our hospitals. A few years ago I compiled data regarding the free service rendered such patients by one of our hospitals, and found that 40 per cent of the free patients for that year came from a county sixty miles distant. There have been many abuses and deceptions practiced by people who can afford to pay something, but we have never been able to get cooperation from anyone in those counties to enable us to be remunerated for our hospitalization.

Through urgent appeal from *The Medical Association of Georgia*, the 1939 session of the Legislature passed an Enabling Act, designed to remedy this situation. This measure constitutes a great step forward, by making it legal for County Commissioners to levy taxes necessary to take care of their indigent sick, and thus assume responsibilities which have always been theirs. This is a very important measure and will be a great relief to many of our physicians and hospitals, if county officials are made to understand that they must provide funds for taking care of their poor who need medical and hospital care. But it is our duty to keep them reminded of this law, and insist that they observe it.

Another act passed, which has great value, is the Dangerous Drug Act. This law restricts dispensing of certain drugs to the kinds and quantities prescribed by legalized physicians, for indiscriminate and excessive use of these preparations had become a mat-

ter of great concern. There have been some complaints against the law, but that is always true when a restrictive measure is first enforced. The Dangerous Drug Act, which became effective June 1, 1939, prohibits counter sale of the following: Amytal, Luminal, Veronal, Barbitol, Acid Diethylbarbituric, Sulfanilamide, Pronotylin, Neo-prontosil, or any salts, derivatives or compounds of preparations containing any of the foregoing substances, their salts, derivatives or compounds, or any trademarked or copyrighted preparation or compound registered in the U. S. Patent Office containing more than four (4) grains to the avoirdupois or fluid ounce of the above substances. These drugs can be obtained only on written prescriptions of legally qualified physicians.

Georgia has long held an unenviable reputation for being backward in its attention to public health. It seems to one who has made some observation along this line that we are about to emerge from this lethargy and enter upon an era of progress. My opinion is substantiated by what was brought to us by speakers on the program at the meeting of the Georgia Public Health Association in Atlanta, June 8-10. Dr. Mark V. Ziegler, Senior Surgeon, U.S.P.H.S., said the program of Georgia's State Board of Health is one of the best in the United States, and that the malaria program was the best of any state in the South. The address of the President, Dr. S. C. Rutland, of LaGrange, was one of the outstanding events of that excellent meeting, and bespoke a familiarity with, and an understanding of the problems of the State Board of Health.

We have an excellent personnel and set-up in our State Department of Public Health, but it cannot function efficiently unless it has sufficient funds. We, as physicians, must actively and ceaselessly strive to improve health conditions in our great State. It is axiomatic that public health is purchasable, and good health is the most valuable asset. The people are looking to us for direction and leadership in health problems. Let us measure up to our responsibilities by giving health authorities full cooperation and assistance.

WILLIAM H. MYERS, M. D.



**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JULY, 1939

## ANTERIOR POLIOMYELITIS

Since a number of cases of anterior poliomyelitis or "infantile paralysis" have been recently reported in South Carolina and Augusta, it should be of interest to review briefly what is known concerning this disease and its prevention. Public alarm over this disease is somewhat excessive and is due to the crippling effect in some cases. It should be remembered, however, that a few cases occur each summer and that even in an epidemic only a small part of the population is ever affected, unlike highly contagious diseases, such as measles. Finally, of those affected only about twenty-five per cent develop paralysis.

The question of greatest interest to the public as well as to the medical profession is that of prevention. Adequate preventive measures depend upon knowledge of how the disease is spread and how the body is invaded by the specific virus. Unfortunately, neither of these questions can be answered. The route of infection in the human is still questionable. While in the experimental animals it has been demonstrated that infection occurs in the nasopharynx by way of the olfactory nerves directly into the nervous system, there is no proof that infection in the human occurs in this manner. There is much evidence to show that infection in the human occurs by way of the gastro-intestinal tract and the virus can be isolated from the stools with greater frequency than from the nasopharynx. Consequently, the use of nasal sprays as a preventive measure during an epidemic does not rest on a sound basis and is not justified. Since these sprays cannot be properly administered by untrained persons and since, when properly administered, they produce a loss of smell and other irritating symptoms for a varying period of time, their use is also impractical. Vaccines have proved to be either ineffective or dangerous, and the use of convalescent serum during an epidemic

has also been found of no benefit. Consequently there are no specific measures which the individual may use during an epidemic with any hope of escaping the disease. It is of some interest to note that, according to Heaslip, children who have not been immunized to diphtheria seem more susceptible to the disease than those who have been immunized. This point is worthy of consideration. There is also some evidence to indicate a relationship between vitamin C deficiency and susceptibility to the disease. The drinking of large amounts of fruit juices for an adequate vitamin C intake might be worthwhile.

Since it is so difficult to trace one case of infection to another case, and the disease tends to attack individuals in widely separated areas, the mode of spread of the disease is a difficult problem. It has been assumed that the disease is spread by healthy carriers but this has never been proved. That transmission by insects, food and water may occur is still a possibility. The fact that the virus is found in the stools of patients makes it imperative that the stools be disinfected. The incubation period is considered to be from seven to fourteen days so that it is customary to isolate patients and those who have been in contact with the patient for two weeks. Quarantine, however, appears to be of minor importance.

The early symptoms of the disease are not specific and may be those of a general infection, such as fever, sore throat, vomiting, diarrhea and generalized pains. Careful examination, however, may reveal suggestive findings such as stiffness of the spine, especially the neck, muscle tenderness, unusual irritability and fretfulness, stupor or change in tendon reflexes. Such symptoms are indications for examination of the spinal fluid to confirm the diagnosis. Frequently, however, it is only after the onset of paralysis that the diagnosis becomes clear. This paralysis may involve any part of the body and vary from a mild weakness in some muscles to a complete paralysis of others. The weakness or paralysis reaches a maximum within a few days then becomes stationary. Improvement later begins and may continue for many months.

The most important factor in the treatment of this disease is absolute rest for all

muscles which are weak or paralyzed, for a long period of time. It is important that paralyzed extremities be placed in a position which will tend to prevent deformity and it is often well to apply casts or splints for this purpose. There is no specific medication of any benefit. Use of convalescent serum very early in the disease is advised by a few authorities but the majority do not believe that it is beneficial. Sulfanilamide was used in seventeen cases by Sako who found it of no value. Recently the use of potassium chlorate, one-third to six grams daily, has been advised by Contat, but its value has not been confirmed. We look forward to the time when medical research will solve the problems involved in the prevention of this disease.

WM. A. SMITH, M. D.

#### PROGRESS IN CANCER RESEARCH

Science, official organ of the American Association for the Advancement of Science, describes a diagnostic test for cancer. Dr. Theodore H. Elsasser and Prof. George B. Wallace, of the Departments of Surgery and Pharmacology, New York University College of Medicine, are the originators of a method whereby the possible diagnosis of early cancer may be obtained.<sup>1</sup> The procedure is analogous to the Wassermann reaction for syphilis and the Aschheim-Zondek test for early pregnancy. Either the urine, the blood serum, or both, can be used and, when injected into the veins of pregnant rabbits, abortions result within an average of five days provided the suspect is affected with cancer. It is claimed the result is specific for all types of cancer. "The uterine changes which are produced are striking. With daily injections of the urine there occur, starting at the inner border of the decidual cells, a progressive placental necrosis associated with infiltration of inflammatory cells. The zone of necrosis becomes increasingly broadened until it involves the entire embryonal mass on the decidua. With the removal or absorption of the fetal structures, the uterus eventually returns to a normal state."

Controls with non-ill people or patients suffering from other diseases failed to produce similar results. It is predicted the procedure

will prove more reliable than either the Wassermann or Aschheim-Zondek reactions, as it will be confirmed from two sources, the blood and the urine.

Medical organizations, of which THE MEDICAL ASSOCIATION OF GEORGIA is numbered, have long carried on a campaign to teach people to seek early medical advice concerning signs which may give a warning of the possibility of cancer, precancerous lesions and early cancer. This new diagnostic procedure may prove the means of having people submit to the test at shorter intervals, and thereby prove a great public health measure. It is not claimed, when positive, that it will restore the tissue or organ involved; but it will serve to place the clinician on guard to suspect that structure that gives indications of dysfunction.

The mysterious substance in the blood serum and urine which causes the rabbits to abort is unknown, and once it is discovered a clue may be gained to the nature of malignant growths. The investigators state it is probably a hormone but that they are unacquainted with one capable of producing such results. When the abortion producing urine and serum are injected into non-pregnant rabbits the same phenomena occur as those following the Aschheim-Zondek test for pregnancy. However, the pregnancy test hormone can be ruled out as being identical with the supposed cancer hormone, as it will not produce abortions in pregnant rabbits. "It would seem that the urine and serum of patients with malignant tumors have a selective and destructive action on embryonal or newly growing tissue."<sup>1</sup>

Thus another milestone is seemingly passed in this study of the second of "The Captain of the Men of Death." It remains for other investigators to corroborate the startling results encountered by Dr. Elsasser and Prof. Wallace, but in the meantime the method seems so easy of application by clinicians that it is to be hoped that the profession generally will interest itself; for an added responsibility is upon organized medicine to educate its members and the people generally.

GEO. A. TRAYLOR, M.D.

1. Elsasser, Theodore H. and George B. Wallace: A Selective Action of Urine and Serum from Patients with Malignant Tumors on Embryonal and Newly-Growing Tissues, *Science* Vol. 89, No. 2307 (March 17, 1939), pp. 250-251.

MEMBERS REGISTERED AT THE EIGHTY-NINTH ANNUAL SESSION  
OF THE

MEDICAL ASSOCIATION OF GEORGIA, ATLANTA, APRIL 25-28, 1939

## A

Abercrombie, T. F., Atlanta  
 Able, L. G., Atlanta  
 Abram, L. E., Fitzgerald  
 Adair, R. E., Cartersville  
 Adkins, H. T., Cochran  
 Agnor, E. B., Atlanta  
 Akin, B. F., Jackson  
 Akin, Jno. T., Jr., Atlanta  
 Alden, Herbert, Atlanta  
 Alexander, Geo. H., Forsyth  
 Allen, C. H., Bremen  
 Allen, Eustace A., Atlanta  
 Allen, H. D., Jr., Milledgeville  
 Allen, H. Homer, Decatur  
 Allison, Gordon G., Atlanta  
 Alsobrook, J. S., Rossville  
 Anderson, A. B., Atlanta  
 Anderson, Carl L., Macon  
 Anderson, G. M., Morgan  
 Anderson, J. C., Macon  
 Anderson, Wm. W., Atlanta  
 Andrews, Chas. R., Jr., Canton  
 Andrews, Justin, Decatur  
 Ansley, H. G., Decatur  
 Applewhite, J. D., Macon  
 Archer, Geo. F., Atlanta  
 Armstrong, E. S., Cordele  
 Armstrong, W. B., Atlanta  
 Arp, C. Raymond, Atlanta  
 Askew, H. H., Atlanta  
 Askew, P. H., Jr., Nashville  
 Askew, Rufus A., Atlanta  
 Atkins, F. M., Atlanta  
 Atkinson, Harold C., Macon  
 Ault, H. J., Dalton  
 Avary, Arch, Jr., Ellaville  
 Aven, C. C., Atlanta  
 Ayer, Guy D., Atlanta  
 Ayers, A. J., Atlanta  
 Ayers, C. L., Toccoa

## B

Bacon, A. S., Albany  
 Baggett, L. G., Atlanta  
 Bagley, D. A., Austell  
 Bailey, D. V., Elberton  
 Baird, J. Mason, Atlanta  
 Bailey, M. K., Atlanta  
 Ballenger, E. G., Atlanta  
 Ballenger, W. L., Atlanta  
 Ballew, James, Atlanta  
 Bancker, E. A., Jr., Atlanta  
 Banks, G. T., Fairmount  
 Banister, H. G., Ila  
 Banister, W. G., Rome  
 Barfield, F. M., Atlanta  
 Barnett, Crawford, Atlanta  
 Barnett, J. M., Albany  
 Barnett, S. T., Jr., Atlanta  
 Barnett, S. T., Sr., Atlanta  
 Barrett, Clara, Atlanta  
 Bashinski, Benj., Macon

Bateman, Needham B., Atlanta  
 Battey, W. W., Augusta  
 Baylis, Gene A., Atlanta  
 Beasley, B. T., Atlanta  
 Belle, M. S., Emory University  
 Beeler, J. Moss, Atlanta  
 Beck, E. A., Atlanta  
 Bell, J. A., Jr., Dublin  
 Belle, M. S., Emory University  
 Bell, Kenneth R., Atlanta  
 Bell, Rudolph, Thomasville  
 Bellhouse, Helen W., Thomasville  
 Benson, H. Bagley, Atlanta  
 Benson, Marion T., Jr., Atlanta  
 Benson, Marion T., Sr., Atlanta  
 Berman, Dave, Columbus  
 Bernard, G. T., Augusta  
 Bickerstaff, H. J., Atlanta  
 Billinghurst, Geo., Rome  
 Binion, Richard, Milledgeville  
 Bivings, Lee, Atlanta  
 Bishop, Everett L., Atlanta  
 Blackman, W. W., Atlanta  
 Blalock, Frank A., Atlanta  
 Blalock, J. C., Atlanta  
 Blackford, L. Minor, Atlanta  
 Blanchard, Mercer, Columbus  
 Bleich, J. K., Atlanta  
 Blincoe, Homer, Emory University  
 Boland, Frank K., Atlanta  
 Boland, Frank K., Jr., Atlanta  
 Boland, Joe H., Atlanta  
 Boling, Edgar, Atlanta  
 Bondurant, H. W., Emory University  
 Boswell, W. C., Macon  
 Bosworth, Edward, Rome  
 Bowcock, C. M., Atlanta  
 Bowcock, Harold, Atlanta  
 Bowdoin, C. D., Atlanta  
 Bowdoin, Joe P., Atlanta  
 Bowdoin, W. H., Statham  
 Boyd, Montague L., Atlanta  
 Boynton, Chas. E., Atlanta  
 Boynton, Chas. E., Jr., Atlanta  
 Bradley, J. D., Macon  
 Bradley, R. H., Chatsworth  
 Brannen, C. C., Moultrie  
 Brawner, Albert F., Smyrna  
 Brawner, James N., Atlanta  
 Bridges, R. R., Leary  
 Broadrick, G. L., Dalton  
 Brooke, Geo. C., Canton  
 Brown, Chas. T., Jr., Guyton  
 Brown, F. Bert, Savannah  
 Brown, Lester, Atlanta  
 Brown, S. Ross, Atlanta  
 Brown, Samuel Y., Atlanta  
 Brown, Stewart D., Royston  
 Bryant, C. H., Comer  
 Brown, Stephen T., Atlanta  
 Bunce, Allen H., Atlanta

Burch, J. C., Atlanta  
 Burke, B. Russell, Atlanta  
 Burgess, Taylor, Atlanta  
 Burney, L. E., Atlanta  
 Burpee, C. M., Augusta  
 Burton, J. M., Emory University  
 Busch, J. F., Atlanta  
 Busey, T. J., Fayetteville  
 Byne, J. M., Jr., Waynesboro  
 Byrd, Edwin S., Atlanta  
 Byrd, M. M., West Point  
 Byrd, T. Luther, Atlanta

## C

Cagle, W. D., Gainesville  
 Callaway, Enoch, LaGrange  
 Camp, R. T., Fairburn  
 Campbell, J. L., Atlanta  
 Cardwell, E. S., Jr., Augusta  
 Carr, David T., Atlanta  
 Cary, H. B., Milledgeville  
 Cason, H. B., Warrenton  
 Cason, W. M., Sandersville  
 Castellaw, W. F., Americus  
 Cathcart, Don F., Atlanta  
 Catron, I. T., Avondale Estates  
 Chaffin, E. F., Toccoa  
 Champion, W. L., Atlanta  
 Chaney, Ralph H., Augusta  
 Chappell, Amey, Atlanta  
 Chason, Gordon, Bainbridge  
 Chaudron, P. O., Cedartown  
 Cheshire, S. L., Thomasville  
 Cheves, H. L., Union Point  
 Childs, J. R., Atlanta  
 Chrisman, W. W., Macon  
 Christopher, F. E., Atlanta  
 Claiborne, T. S., Atlanta  
 Clark, James J., Atlanta  
 Clark, T. H., Douglas  
 Claxton, E. B., Dublin  
 Clay, Grady E., Atlanta  
 Cleckley, Hervey, Augusta  
 Cleveland, R. H., Augusta  
 Clifton, Ben H., Atlanta  
 Cline, B. McH., Atlanta  
 Cline, Wade, Emory University  
 Cochran, Hugh L., Atlanta  
 Cochran, W. N., Augusta  
 Cofer, Olin S., Atlanta  
 Coffee, W. P., Fitzgerald  
 Coker, Grady N., Canton  
 Coleman, Reese, Atlanta  
 Coleman, Warren, Eastman  
 Coleman, Y. R., Jonesboro  
 Collier, Thos. J., Atlanta  
 Collins, Braswell E., Waycross  
 Collins, J. J., Thomasville  
 Colvin, E. G., Locust Grove  
 Colvin, E. S., Atlanta  
 Colvin, J. T., Jesup  
 Colvin, Stewart, Atlanta  
 Combs, J. A., Atlanta



Compton, B. S., Atlanta  
 Cone, R. L., Statesboro  
 Conner, George, Columbus  
 Cook, Wm. C., Columbus  
 Cooper, F. W., Jr., College Park  
 Cooper, J. J., Cedartown  
 Cooper, Talbert, Atlanta  
 Copeloff, M. B., Atlanta  
 Coppedge, W. W., Augusta  
 Corn, Ernest, Macon  
 Corry, J. A., Barnesville  
 Crawford, C. B., Blue Ridge  
 Crawford, C. L., Atlanta  
 Crawford, H. C., Atlanta  
 Crawford, J. B., Emory University  
 Cross, Jno. B., Atlanta  
 Crovatt, Joe G., Nicholls  
 Crowe, Wm. R., Atlanta  
 Curtis, W. C., Tallapoosa  
 Curtis, Walker L., College Park

## D

Daniel, Jno. W., Jr., Savannah  
 Davenport, T. F., Atlanta  
 Daniel, Chas. H., College Park  
 Davidson, A. A., Augusta  
 Davis, A. W., Warrenton  
 Davis, E. B., Byromville  
 Davis, Shelley C., Atlanta  
 Davis, W. B., College Park  
 Davison, Hal M., Atlanta  
 Davison, T. C., Atlanta  
 Derrick, H. C., Oglethorpe  
 Denton, Jno. F., Atlanta  
 Dew, J. Harris, Atlanta  
 Dickson, Roger W., Atlanta  
 Dillard, G. J., Columbus  
 Dimmock, Avary, Atlanta  
 Dismuke, H. L., Ocilla  
 Dorough, W. S., Atlanta  
 Dougherty, Mark S., Jr., Atlanta  
 Dover, J. C., Clayton  
 Downey, C. W., Tallapoosa  
 Drane, Robert, Savannah  
 Duncan, B. C., Atlanta  
 Dunn, Jas. G., Jr., Emory University  
 Dunn, W. M., Atlanta  
 DuVall, Beecher, Atlanta

## E

Eberhart, Chas. A., Atlanta  
 Echols, Geo. L., Milledgeville  
 Edgerton, M. T., Atlanta  
 Ehrlich, M. A., Bainbridge  
 Emery, W. B., Atlanta  
 Elder, C. D., Marietta  
 Elkin, Daniel C., Atlanta  
 Ellis, J. W., Kennesaw  
 Engelking, Chas. F., Dalton  
 Enzor, R. H., Smithville  
 Eskridge, Frank, Jr., Atlanta  
 Etheridge, I. H., Atlanta  
 Eubanks, Geo. F., Atlanta  
 Evans, E. L., Tifton  
 Evans, J. R., Stone Mountain

## F

Fancher, J. K., Atlanta  
 Fanning, O. O., Atlanta  
 Farmer, C. H., Macon  
 Ferguson, I. A., Atlanta  
 Ferrell, T. J., Waycross  
 Fitts, Jno. B., Atlanta  
 Fincher, Ed., Atlanta  
 Fischer, L. C., Atlanta  
 Fleming, C. A., Tifton  
 Florence, Loree, Athens  
 Floyd, Chas. S., Loganville  
 Floyd, Earl, Atlanta  
 Floyd, J. T., Atlanta  
 Fort, A. G., Atlanta  
 Fort, Lynn, Atlanta  
 Fort, M. A., Bainbridge  
 Foster, Kimsey E., College Park  
 Foster, L. I., Ellijay  
 Foster, Maude E., Atlanta  
 Foster, R. H., Atlanta  
 Fountain, Jas. A., Macon  
 Fowler, A. H., Marietta  
 Fowler, C. Dixon, Atlanta  
 Fowler, M. F., Atlanta  
 Fowler, R. W., Marietta  
 Franklin, R. C., Swainsboro  
 Fuller, Geo. W., Atlanta  
 Fuller, Robert M., Atlanta  
 Funke, Jno., Atlanta  
 Funkhouser, W. L., Atlanta

## G

Gallemore, J. L., Perry  
 Gallis, A. H., Atlanta  
 Galt, Jesse M., Marietta  
 Garner, J. E., Thomaston  
 Garner, John P., Atlanta  
 Garner, J. R., Atlanta  
 Garner, W. R., Gainesville  
 Garrard, J. L., Rome  
 Garrett, L. G., Austell  
 Garrison, D. H., Clarkesville  
 Garrison, W. H., Clarkesville  
 Garver, Carl C., Atlanta  
 Gary, Loren, Georgetown  
 Gary, Loren, Jr., Shellman  
 Gaston, Joseph H., Columbus  
 Gay, Bolling, Atlanta  
 Gay, J. Gaston, Atlanta  
 Gay, J. R., Homerville  
 Gerdine, Linton, Athens  
 Gholston, W. D., Danielsville  
 Gibson, F. N., Thomson  
 Gibson, Sam T., Atlanta  
 Gifford, John P., Atlanta  
 Gilbert, R. B., Greenville  
 Gilbert, W. M., Rome  
 Gilliam, O. D., Columbus  
 Ginsburg, Edward M., Atlanta  
 Glynn, Wadley R., Dunwoody  
 Goldsmith, Wm. S., Atlanta  
 Goodpasture, W. C., Atlanta  
 Goodwyn, H. J., Carrollton  
 Goodwyn, Thomas P., Atlanta

Grace, Kenneth D., LaGrange  
 Greer, Chas. A., Oglethorpe  
 Greer, C. B., Brunswick  
 Green, A. J., Union City  
 Greene, Ed H., Atlanta  
 Greenblatt, Robert B., Augusta  
 Griffin, Claude, Atlanta  
 Griggs, H. E., Conyers  
 Groover, M. E., Quitman  
 Grove, Lon, Atlanta

## H

Hagood, G. F., Marietta  
 Hagood, M. M., Marietta  
 Hailey, Howard, Atlanta  
 Hailey, Hugh, Atlanta  
 Hale, B. C., Rossville  
 Hall, C. E., Jr., Atlanta  
 Hall, John I., Macon  
 Hall, O. D., Atlanta  
 Hall, Thos. H., Macon  
 Hall, W. D., Calhoun  
 Hallum, Alton V., Atlanta  
 Hamilton, R. E., Douglasville  
 Hamm, W. G., Atlanta  
 Hammond, G. W., Newnan  
 Hanner, Jas. P., Atlanta  
 Harbin, Lester, Rome  
 Harbin, R. M., Jr., Rome  
 Harbin, R. M., Rome  
 Harbin, William, Jr., Rome  
 Harper, G. T., Dewy Rose  
 Harper, Sage, Wray  
 Harrell, H. P., Augusta  
 Harris, E. R., Winder  
 Harris, M. M., Waycross  
 Harrison, M. T., Atlanta  
 Harrold, Chas. C., Macon  
 Harvard, V. O., Arabi  
 Harvey, C. W., Hogsheadville  
 Hauck, A. E., Atlanta  
 Hawkins, T. I., Griffin  
 Head, D. L., Zebulon  
 Head, M. M., Zebulon  
 Henderson, C. A., Dawson  
 Hendrick, A. G., Sylvester  
 Henry, C. G., Augusta  
 Henry, Lamont, Atlanta  
 Hensley, E. A., Gibson  
 Herman, E. C., LaGrange  
 Howell, Guy C., Atlanta  
 Higginbotham, S. Roy, Emory University  
 Hill, Roy A., Thomasville  
 Hilsman, A. H., Albany  
 Hinton, W. T., Dacula  
 Hobby, A. Worth, Atlanta  
 Hodges, J. H., Hapeville  
 Hodgson, Fred G., Atlanta  
 Holden, F. C., Atlanta  
 Holloway, Geo. A., Atlanta  
 Holmes, Champ, Atlanta  
 Holmes, J. P., Macon  
 Holmes, L. P., Augusta  
 Holmes, Walter R., Atlanta

Holton, C. F., Savannah  
 Holtzclaw, M. R., Atlanta  
 Howard, Lea, Savannah  
 Howell, J. L., Atlanta  
 Howell, Stacy C., Atlanta  
 Huie, L. M., Atlanta  
 Hunt, K. S., Griffin  
 Hunter, Conway, Atlanta  
 Hutchins, J. T., Atlanta  
 Hutto, W. E., Atlanta

## I

Ingram, A. S., Griffin  
 Ivey, J. C., Atlanta

## J

Jackson, J. B., Clarksville  
 Jackson, J. H., Barnesville  
 Jackson, Zach W., Atlanta  
 Jenkins, Wm. F., Columbus  
 Jenkins, J. I., Hartwell  
 Jernigan, C. S., Sparta  
 Jernigan, H. W., Atlanta  
 Johnson, Alton M., Valdosta  
 Johnson, J. E., Jr., Elberton  
 Johnson, J. E. L., Roberta  
 Johnson, McClaren, Atlanta  
 Johnson, Trimble, Atlanta  
 Johnston, Z. V., Calhoun  
 Joiner, Hartwell, Gainesville  
 Jones, B. B., Metter  
 Jones, E. G., Atlanta  
 Jones, Jack W., Atlanta  
 Jordan, W. P., Columbus  
 Josephs, Alvin D., Atlanta

## K

Kay, Jas. B., Byron  
 Keen, O. F., Macon  
 Kelley, D. C., Lawrenceville  
 Kelley, L. H., Atlanta  
 Kelley, W. A., Atlanta  
 Kelly, G. Lombard, Augusta  
 Kemp, Paul S., Macon  
 Kemper, Clifton G., Atlanta  
 Kennedy, B. L., Dalton  
 Kenyon, J. M., Richland  
 Kenyon, S. P., Dawson  
 King, J. L., Macon  
 King, O. D., Bremen  
 King, Ruskin, Savannah  
 Kirby, E. G., Bowden  
 Kirkland, Spencer A., Atlanta  
 Kiser, William, Jr., Atlanta  
 Kite, J. Hiram, Atlanta  
 Klugh, Geo. F., Atlanta  
 Klugh, Geo. F., Jr., Atlanta  
 Kracke, Roy R., Emory University

## L

Lake, Wm. F., Atlanta  
 Lancaster, E. M., Shady Dale  
 Lancaster, H. H., Dahlonega  
 Landham, J. W., Atlanta  
 Lang, G. H., Savannah  
 Lange, J. Harry, Atlanta  
 Lanier, J. E., Moultrie  
 Lawrence, Chas. E., Atlanta

Laws, Clarence, Atlanta  
 Leadingham, R. S., Atlanta  
 Leslie, J. T., Griffin  
 Lewis, Albert W., Jr., Atlanta  
 Lewis, S. J., Augusta  
 Linch, A. O., Atlanta  
 Lindley, F. P., Powder Springs  
 Little, Arthur D., Thomasville  
 Little, S. C., Atlanta  
 Little Tom F., Tifton  
 Logan, J. C., Plains  
 Lokey, Hugh M., Atlanta  
 Longino, D. R., Atlanta  
 Lord, C. B., Jefferson  
 Lott, Oscar H., Savannah  
 Lowance, Mason L., Atlanta  
 Lowe, W. R., Midville  
 Lower, Emory G., Atlanta  
 Lunsford, Guy G., Atlanta

## M

Maddox, Robert C., Rome  
 Magoun, Chas. E., Trion  
 Malone, Bert H., Atlanta  
 Malone, O. T., Atlanta  
 Mann, F. R., McRae  
 Martin, Anthony J., Atlanta  
 Martin, J. D., Jr., Atlanta  
 Martin, James J., Atlanta  
 Mashburn, Chas. M., Atlanta  
 Mashburn, Marcus, Cumming  
 Massee, J. C., Atlanta  
 Mathews, W. L., Winder  
 Matthews, O. H., Atlanta  
 Matthews, W. Eugene, Augusta  
 McAliley, R. Geo., Atlanta  
 McAllister, R. W., Macon  
 McCall, J. T., Rome  
 McCall, W. R., LaGrange  
 McCarver, W. C., Vidette  
 McCay, C. G., Atlanta  
 McCord, James R., Atlanta  
 McCord, M. M., Rome  
 McCord, Ralph B., Rome  
 McCoy, W. R., Lithonia  
 McCullough, Kenneth, Waycross  
 McCurdy, J. W., Thomaston  
 McCurdy, Willis T., Stone Mountain  
 McCurdy, W. T., Stone Mountain  
 McDaniel, J. G., Atlanta  
 McDaniel, J. Z., Augusta  
 McDonald, H. P., Atlanta  
 McDougall, Calhoun, Atlanta  
 McDougall, Wm. L., Atlanta  
 McDuffie, J. H., Columbus  
 McElroy, S. L., Ocilla  
 McElveen, J. M., Brooklet  
 McGahee, R. C., Augusta  
 McGahee, John M., Cedartown  
 McGinty, A. Park, Atlanta  
 McGinty, W. R., Moultrie  
 McMichael, J. R., Quitman  
 McRae, Floyd W., Atlanta  
 McWhorter, M. R., Columbus

Meeks, J. L., Gainesville  
 Mendenhall, W. A., Chamblee  
 Mercer, J. E., Vidalia  
 Merrill, Arthur J., Atlanta  
 Mestre, Ricardo, Atlanta  
 Mettler, Fred A., Augusta  
 Maulding, Homer R., Atlanta  
 Mayfield, J. H., Atlanta  
 Mays, J. R. S., Milledgeville  
 Michel, H. M., Augusta  
 Middlebrooks, C. O., Athens  
 Middleton, D. S., Rising Fawn  
 Miller, Hal C., Atlanta  
 Miller, J. G., Atlanta  
 Miles, W. C., Griffin  
 Mims, F. C., Atlanta  
 Minchew, B. H., Waycross  
 Minnich, F. R., Atlanta  
 Minnich, W. R., Atlanta  
 Minor, H. W., Atlanta  
 Mitchell, Marvin A., Atlanta  
 Mitchell, Wm. E., Atlanta  
 Monfort, J. M., Atlanta  
 Moon, P. L., Atlanta  
 Mooney, A. J., Sr., Statesboro  
 Mooney, John, Jr., Statesboro  
 Moore, R. M., Waleska  
 Morgan, J. C., West Point  
 Morrison, Howard J., Savannah  
 Mosteller, R., Atlanta  
 Mulherin, Phil, Augusta  
 Murphey, Eugene E., Augusta  
 Murray, Geo. M., Atlanta  
 Muse, L. H., Atlanta  
 Myers, Guy T., Atlanta  
 Myers, Martin T., Atlanta  
 Myers, Wm. H., Savannah

## N

Nesbit, F. C., Atlanta  
 Nevil, J. L., Metter  
 Newman, W. A., Macon  
 New, J. E., Dexter  
 Newberry, R. E., Atlanta  
 Nicholson, J. H., Madison  
 Nicolson, Perrin, Atlanta  
 Nippert, Philip H., Atlanta  
 North, W. E., Atlanta  
 Norris, Jack C., Atlanta  
 Norvell, J. T., Augusta  
 Nutt, J. J., Bowdon

## O

O'Neal, Rance, West Point  
 O'Neal, R. S., LaGrange  
 Olds, Bomar A., Atlanta  
 Oppenheimer, R. H., Emory University  
 Osborne, V. W., Atlanta  
 Overby, N., Sandersville  
 Overstreet, E. J., Baxley  
 Owensby, N. M., Atlanta

## P

Palmer, J. W., Ailey  
 Parham, L. G., Atlanta  
 Pass, I. J., Macon

Perkerson, I. J., Eastman  
 Parrott, J. V., Columbus  
 Patterson, J. C., Cuthbert  
 Pattillo, C. E., Decatur  
 Patton, L. S., Athens  
 Patton, Sam E., Milledgeville  
 Paullin, James E., Atlanta  
 Pendergrass, R. C., Americus  
 Pennington, C. L., Macon  
 Pentecost, M. P., Atlanta  
 Perkinson, W. H., Marietta  
 Perry, Sam W., Atlanta  
 Persall, Jno. T., Augusta  
 Person, W. E., Atlanta  
 Pettit, J. T., Canton  
 Phillips, A. M., Macon  
 Phillips, Hayward, Atlanta  
 Phillips, Hugh K., Helen  
 Pinson, C. H., Hapeville  
 Pittman, C. S., Tifton  
 Pittman, J. L., Atlanta  
 Pittman, O. C., Commerce  
 Poer, D. Henry, Atlanta  
 Porch, Leon, Macon  
 Porter, J. L., Rutledge  
 Porter, Ralph E., Savannah  
 Powell, B. C., Villa Rica  
 Powell, Charles C., Emory University  
 Powell, J. C., Villa Rica  
 Powell, Vernon E., Atlanta  
 Price, W. T., Augusta  
 Prince, E. L., Morganton  
 Pruitt, M. C., Atlanta  
 Puett, W. W., Norcross

## Q

Quillian, W. B., Cartersville  
 Quattlebaum, J. K., Savannah

## R

Ragan, W. E., Atlanta  
 Rambo, Tom, Emory University  
 Randolph, W. T., Winder  
 Rawlings, F. B., Sandersville  
 Rawiszer, Hubert, Atlanta  
 Rawls, L. L., Macon  
 Rayle, A. A., Atlanta  
 Read, Joseph C., Atlanta  
 Readling, Herbert F., Thomasville  
 Redd, Stephen C., Atlanta  
 Redfearn, J. A., Albany  
 Reed, Clinton, Atlanta  
 Reese, D. S., Carrollton  
 Reid, C. W., Pelham  
 Rhodes, R. L., Augusta  
 Richards, W. R., Calhoun  
 Richardson, Chas. H., Macon  
 Richardson, Jeff L., Atlanta  
 Ridley, C. L., Macon  
 Ridley, F. M., LaGrange  
 Ridley, H. W., Atlanta  
 Reavis, W. F., Waycross  
 Roberts, B. J., Cornelia  
 Roberts, C. W., Atlanta  
 Roberts, M. Hines, Atlanta

Roberts, O. W., Carrollton  
 Robinson, L. B., Atlanta  
 Rogers, A. A., Commerce  
 Rogers, F. S., Coleman  
 Rogers, Harry, Atlanta  
 Rogers J. V., Cairo  
 Roper, C. J., Jasper  
 Rosen, S. F., Savannah  
 Rosenberg, H. J., Atlanta  
 Ross, Thos. L., Jr., Macon  
 Rouglin, L. C., Atlanta  
 Rozar, A. R., Macon  
 Rubin, S. N., Gordon  
 Rudder, Fred F., Atlanta  
 Rudisill, Hillyer, Atlanta  
 Rushin, C. E., Atlanta  
 Russell, Alex B., Winder

## S

Sage, Dan Y., Atlanta  
 Sanderson, Everett S., Augusta  
 Sandison, Calvin, Atlanta  
 Sauls, H. C., Atlanta  
 Saunders, Albert F., Valdosta  
 Savage, C. P., Montezuma  
 Scales, S. F., Carrollton  
 Scarborough, J. Elliott, Atlanta  
 Schaefer, W. B., Toccoa  
 Schenck, H. C., Atlanta  
 Schillinger, E. N., Atlanta  
 Schley, Frank, Columbus  
 Schneider, J. F., Atlanta  
 Schwalb, Otto W., Savannah  
 Scoggins, Paul S., Commerce  
 Scott, W. M., Milledgeville  
 Sellers, T. F., Atlanta  
 Selman, W. A., Atlanta  
 Shackelford, B. L., Atlanta  
 Shallenberger, W. F., Atlanta  
 Shanks, Edgar D., Atlanta  
 Sharp, C. K., Arlington  
 Sharp, C. M., Alto  
 Sharpley, H. F., Jr., Savannah  
 Shearouse, Wm., Savannah  
 Shepard, W. O., Bluffton  
 Sherman, Henry, Cairo  
 Sherman, J. H., Augusta  
 Simmons, J. O., Jr., Atlanta  
 Simmons, J. W., Brunswick  
 Simonton, Fred H., Chickamauga  
 Simpson, Jno. A., Athens  
 Sinkoe, Samuel, Atlanta  
 Slack, Henry R., LaGrange  
 Slaughter, R. Frank, Augusta  
 Sloan, W. P., Atlanta  
 Slocumb, C. B., Doerun  
 Smaha, T. G., Griffin  
 Smith, Archibald, Atlanta  
 Smith, A. C., Elberton  
 Smith, Carter, Atlanta  
 Smith, Charles W., Atlanta  
 Smith, Geo. B., Rome  
 Smith, Inman, Rome  
 Smith, J. R., Hahira  
 Smith, L. A., Quitman

Smith, Lewis M., Atlanta  
 Smith, Louis, Lakeland  
 Smith, M. F., Atlanta  
 Smith, Randolph, Atlanta  
 Smith, R. H., Lincolnton  
 Smith, Simon H., Atlanta  
 Smith, T. H., Valdosta  
 Smith, Wm. A., Atlanta  
 Smith, W. P., Decatur  
 Starr, Trammell, Dalton  
 Staton, T. R., Atlanta  
 Storey, W. Edward, Columbus  
 Story, W. L., Ashburn  
 Stovall, J. T., Jefferson  
 Strickler, C. W., Atlanta  
 Stubbs, Frank H., Albany  
 Stubbs, T. H., Emory University  
 Suarez, Raymond, Macon  
 Swanson, Cosby, Atlanta  
 Swanson, Florence, Decatur  
 Swilling, Evelyn, Macon  
 Swint, Roger C., Atlanta  
 Sydenstricker, V. P., Augusta  
 Styles, O. R., Bowdon

## T

Tanner, W. H., Newnan  
 Taylor, R. L., Davisboro  
 Teasley, B. C., Hartwell  
 Temples, Leo G., Dalton  
 Tepper, Jack, Atlanta  
 Terry, H. B., Acworth  
 Tessier, L. P., Augusta  
 Thebaut, Ben R., Decatur  
 Thomas, D. R., Jr., Augusta  
 Thomason, C. G., East Point  
 Thomason, W. L., Atlanta  
 Thompson, Cleveland, Millen  
 Thompson, D. N., Elberton  
 Thompson, D. O., Atlanta  
 Thompson, O. R., Macon  
 Thornton, Lawson, Atlanta  
 Thurmond, A. G., Augusta  
 Tidmore, J. C., Dawson  
 Tidmore, T. L., Atlanta  
 Tessier, Claude E., Augusta  
 Toepel, Theodore, Atlanta  
 Torpin, Richard, Augusta  
 Travis, W. D., Covington  
 Traylor, Geo. A., Augusta  
 Tribble, J. M., Senoia  
 Trimble, Geo. C., East Point  
 Trimble, W. H., Atlanta  
 Turk, Jno. P., Nelson  
 Turner, John W., Atlanta  
 Turner, W. W., Nashville

## U

Upchurch, W. E., Atlanta  
 Upshaw, C. B., Atlanta

## V

Van Buren, Ebert, Atlanta  
 Van Dyke, A. H., Atlanta  
 Vansant, T. J., Woodstock  
 Vinson, C. D., Atlanta  
 Vinson, Frank, Fort Valley



Vinson, T. O., Griffin  
Volpitto, Perry P., Augusta

## W

Wahl, E. F., Thomasville  
Walker, Exum, Atlanta  
Walker, E. L., Atlanta  
Walker, E. Y., Atlanta  
Walker, Geo. L., Griffin  
Walker, Jno. E., Columbus  
Walker, Wm. A., Cairo  
Wall, C. K., Thomasville  
Wall, J. Cox, Eastman  
Wallace, J. W., Douglas  
Wallis, J. R., Lovejoy  
Walter, R. D., Calhoun  
Wasden, C. N., Macon  
Walton, Jno. M., Atlanta  
Ware, D. B., Fitzgerald  
Ware, Ford, Macon  
Ware, F. L., Warrenton  
Warnell, J. B., Cairo  
Warnock, C. M., Atlanta  
Waters, W. C., Atlanta  
Watkins, A. R., Chamblee  
Watkins, E. W., Ellijay  
Watson, O. O., Macon  
Watt, Chas. H., Thomasville  
Watt, James, Albany  
Weaver, H. G., Macon  
Weaver, O. H., Macon  
Webb, Fred L., Fort Oglethorpe  
Weinberg, Jas. I., Atlanta

Weinstein, Alfred A., Atlanta  
Wells, W. F., Atlanta  
West, C. M., Atlanta  
Whelchel, Cleveland D., Gainesville  
Whitely, Seals L., Cedartown  
Whitley, Jas. R., Dacula  
Whitten, P. R., Atlanta  
Wilcox, Everard A., Augusta  
Wilensky, Louis A., Atlanta  
Williams, C. O., West Point  
Williams, David, Lavonia  
Williams, Geo. A., Atlanta  
Williams, L. W., Savannah  
Williams, P. L., Cordele  
Williams, W. A., Macon  
Williams, W. J., Augusta  
Willingham, T. I., Atlanta  
Willis, T. V., Brunswick  
Wilson, Pleas, Newborn  
Wilson, Richard, Atlanta  
Wilson, S. A., Atlanta  
Winchester, M. E., Brunswick  
Wolff, Bernard P., Atlanta  
Wood, Chas. V., Cedartown  
Wood, D. Lloyd, Dalton  
Wood, Jas. A., Macon  
Wood, R. Hugh, Atlanta  
Woods, Chas. J., Macon  
Worthy, W. Steve, Carrollton  
Wright, Edward S., Atlanta  
Wright, J. J. C., Doerun  
Wright, Peter B., Augusta

## Y

Yampolsky, Jos., Atlanta  
York, Jesse H., Atlanta  
Youmans, C. R., Hazlehurst  
Youmans, J. R., Columbus  
Young, Geo. G., LaFayette  
Young, W. W., Atlanta  
*Guests and Visitors*  
Breitzer, B., Brooklyn, N. Y.  
Clark, Dean A., New York City  
Corn, Chas. P., Greenville, S. C.  
Fallis, Lawrence S., Detroit, Mich.  
Gilman, W. T., Chicago, Ill.  
Griffin, E. W., Townsend, Tenn.  
Hall, Samuel P., Scottsboro, Ala.  
Hicks, Thos. J., Copperhill, Tenn.  
Holden, G. R., Jacksonville, Fla.  
Lee, A. B., Shawmut, Ala.  
Long, W. W., Birmingham, Ala.  
Lundy, John S., Rochester, Minn.  
Manning, J. Frank, Maryville, Tenn.  
MacEachern, M. T., Chicago, Ill.  
Myers, H. C., Philippi, W. Va.  
Pearson, Homer, Miami, Fla.  
Pitman, J. F., Lake City, Fla.  
Pressly, W. L., Due West, S. C.  
Samuels, Maurice, Seattle, Wash.  
Shoulders, H. H., Nashville, Tenn.  
Steward, W. Dean, Chattanooga, Tenn.  
Temples, P. M., Spartanburg, S. C.  
Weidner, S., Memphis, Tenn.

## THE FIRST MARINE HOSPITAL

(Continued from page 286)

putting ashore sick or injured seamen without making provision for their care."

In 1794, an act was passed imposing "a tax of 30 cents on every sailor, to be paid by the captain, master, or owner of the vessel on her return from a voyage at the time of making entry of such vessel."

This tax was to be deducted from the seamen's wages, and the money collected applied under the direction of the executive towards finishing and supporting the marine hospital in the town of Washington, County of Norfolk. The collection of the tax was limited to seamen on vessels arriving at ports on the James, the York, the Rappahannock, and the Elizabeth Rivers.

Four years later the State decided to dispose of the hospital. Thus, on January 20, 1798, the Legislature passed an act authorizing the Governor to offer the marine hospital for sale to the Congress of the United States for use as a hospital for seamen, the price asked being the amount still owing to the contractor for the construction work.

The hospital was purchased by the United States from the State of Virginia in 1801,

and continued in use as a marine hospital under the act of Congress approved July 16, 1798, creating the United States Marine Hospital Service. This was the first marine hospital in America.

In January, 1798, four residents of the island of Martha's Vineyard, Mass., presented a memorial to the Massachusetts State Legislature inviting attention to the need for a hospital on the island for the care of sick seamen. In response to this memorial, the Legislature in the following month (Feb. 17, 1798) passed a resolution to the effect that a hospital should be built "at the discretion and under the direction of his Excellency, the Governor, on the Island of Martha's Vineyard at, or near, the harbor of Holmes Hole for the reception of such sick persons as might arrive there from the sea."

There was published in the *Vineyard Gazette* of Martha's Vineyard, Mass., on Friday, February 3, 1939, an account of what is left of the old hospital. The cellar hole is all that remains and, not far away, there still stands a gravestone on which is an epitaph probably to the memory of the first sailor who died in the hospital.

**WOMAN'S AUXILIARY : OFFICERS 1939-1940**

President—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

President-elect—Mrs. H. G. Banister, Ila.

First Vice-President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Second Vice-President—Mrs. C. H. Richardson, Milledgeville.

Third Vice-President—Mrs. Loren Gary, Jr., Shellman.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

Treasurer—Mrs. R. A. Woodbury, Jr., 1232 Belmont Drive, Augusta.

Historian—Mrs. J. L. Nevill, Metter.

Parliamentarian—Mrs. L. W. Williams, 135 East 45th Street, Savannah.

**PRE-CONVENTION MINUTES OF  
FIFTEENTH ANNUAL SESSION  
APRIL 25, 1939**

The Executive Board meeting was called to order by the President, Mrs. Warren Coleman.

The Lord's Prayer was repeated in concert.

The post-convention minutes of 1938 were read and approved.

Report of Committee on Revisions was made by Mrs. J. N. Brawner. She presented 700 copies of Constitution and By-Laws, revised and in pamphlet form. The cost was \$15.00. Mrs. W. H. Myers moved that the report be accepted with thanks. Motion carried.

Mrs. Ralph Chaney made suggestions for changes in rules for awarding the Brawner cup. These were filed in minutes. Mrs. Brawner moved corrections as read by Mrs. Chaney be accepted. Motion carried.

Report from Mrs. Eustace Allen concerning Year Book, announced that a Year Book without funds was impossible. She has asked help from Dr. Shanks by the Medical Association of Georgia, which he is to refer to the Council. Discussions were made by Mrs. Brawner, Mrs. Chaney and Mrs. Rogers. Mrs. Myers moved that publication of Year Book be left to Advisory Board and Executive Board meeting in summer. Motion carried.

Mrs. Harry Rogers, press and publicity chairman, announced that the Atlanta Constitution had offered space monthly instead of quarterly for Auxiliary material. She urged that organizations send in material regularly.

Mrs. Eustace Allen moved that as first president of the Auxiliary, and in appreciation of her untiring and faithful service, Mrs. J. N. Brawner, be made Honorary President for life; and that her name appear on any printed matter concerning Auxiliary or archives. Motion carried.

Silent tribute was paid Mrs. Allen H. Bunce, the dearly beloved and distinguished member who had just passed on.

The Recording Secretary was appointed to make recommendations from the Executive Board to the Body in session the next day.

Following committees were appointed:

*Nominating Committee:* Members from Executive Board were: Mrs. Ralph Chaney, Chairman, Augusta; Mrs. Harry Rogers, Atlanta; Mrs. Lehman Williams, Savannah.

Members from Body at Large were: Mrs. J. A. Redfearn, Albany; Mrs. H. E. Griggs, Conyers; Mrs. J. C.

Patterson, Cuthbert; Mrs. H. C. Sauls, Atlanta.

Mrs. Myers moved nominations be closed. Nominees were elected.

*Auditing Committee:* Mrs. W. H. Myers, Chairman, Savannah; Mrs. M. T. Benson, Atlanta; Mrs. Claude E. Tessier, Augusta.

*Resolutions Committee:* Mrs. C. L. Ayers, Chairman, Toccoa; Mrs. Richard Torpin, Augusta; Mrs. Ralph Freeman, Hoschton.

*Courtesy Committee:* Mrs. H. G. Banister, Chairman, Ila; Mrs. E. S. Peacock, Harrison; Mrs. E. R. Harris, Winder.

Mrs. Bruce Schaefer moved that the matter of membership in counties other than where members reside (because doctors have no organizations there) be referred to Advisory and Executive Board meeting in summer. Motion carried.

Adjourned.

MRS. CLEVELAND THOMPSON, *Secretary.*

**FIFTEENTH ANNUAL SESSION**

The Fifteenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the President, Mrs. Warren Coleman, Wednesday morning, April 26, 1939, at the Biltmore Hotel, Atlanta.

The invocation was made by Dr. Ryland Knight, Pastor of Second Ponce de Leon Baptist Church.

The Convention body was welcomed by Mrs. B. L. Shackleford, President of the Fulton County Auxiliary, to which Mrs. John A. Corry of Barnesville made response.

Dr. J. N. Brawner, Chairman of the Advisory Committee from the Medical Association of Georgia, brought a message of approval and encouragement. He particularly stressed the excellent cooperation of Mrs. Warren Coleman.

Mrs. Charles H. Richardson of Milledgeville, presented the guests of honor as follows: Mrs. Frank N. Haggard, San Antonio, Texas, First Vice President of the Woman's Auxiliary to the American Medical Association; and Mrs. W. K. West, Oklahoma City, president of the Woman's Auxiliary to the Southern medical association; Mrs. Charles P. Corn, Greenville, S. C., president-elect of the Southern Medical Auxiliary. Mrs. Richardson then presented past presidents of the Georgia Auxiliary and the present officers of the organization.

Dr. Brawner presented Dr. Grady Coker, president of the Medical Association of Georgia, who addressed the body on "The Woman's Auxiliary an Opportunity

for Service." He commended the work done by the Auxiliary as vital to the medical profession.

Mrs. Ed. Greene of Atlanta, presented the pages and assured the convention of their desire to be of service during the meetings.

Mrs. Warren Coleman presented Mrs. Frank N. Haggard, of San Antonio, who gave an inspiring and challenging address on "Present-Day Participation of Women in Public Affairs."

Mrs. Joseph Yampolsky, of Atlanta, presented the past presidents' pins. These carry the "caduceus," the emblem of the medical profession, encircled by pearls, and are fitting testimony to the service and loyalty of those who have served as presidents. Those present to receive pins were: Mrs. J. N. Brawner, Mrs. W. H. Myers, Mrs. C. W. Roberts, Mrs. M. T. Benson, Mrs. Bonar White, Mrs. E. R. Harris, Mrs. Ralph Chaney, and Mrs. Warren Coleman.

Mrs. Brawner moved that the past presidents wear these pins always over the heart. Motion carried.

Mrs. Ralph Chaney, parliamentarian, read rules governing convention procedure.

Minutes of second day of 14th Annual Session and of meeting of Advisory Board and Executive Board read and approved.

Mrs. J. N. Brawner moved that a message of sympathy be sent Mrs. W. R. Dancy in the recent loss of her brother, and that a message of congratulation be sent Mrs. Loren Gary, Jr., upon the birth of her baby.

Reports were read from the following District Managers: Third, Mrs. J. Cox Wall; Fifth, read by Mrs. Eustace Allen; Sixth, read by Mrs. W. W. Chrisman; Eighth, Mrs. Louis Smith; Ninth, Mrs. Bruce Schaefer.

Reports from the following County Presidents were read: Mrs. E. R. Harris, Barrow; Mrs. C. H. Richardson, Baldwin; Mrs. Rhea Richardson, Bibb; Mrs. H. G. Bannister, Clarke; Mrs. C. J. Roper, Cherokee-Pickens; Mrs. L. W. Williams, Chatham; Mrs. J. Cox Wall, Dodge; Mrs. J. A. Redfearn, Dougherty; Mrs. B. L. Shackleford, Fulton; Mrs. D. H. Garrison, Habersham; Mrs. Ralph Freeman, Jackson; Mrs. T. F. Harper, Randolph; Mrs. Richard Torpin, Richmond; Mrs. C. L. Ayers, Stephens; Mrs. Kenneth Grace, Troup; Mrs. T. J. Ferrell, Ware; Mrs. Fred Rawlings, Washington.

Mrs. Myers moved that all reports be accepted as read. Motion carried.

Recommendations read by Secretary from the Executive Board were:

*First*, that the Body accept gratefully report from Revision Committee, Mrs. J. N. Brawner, Chairman, in the form of the new Constitution and By-Laws. Seven hundred of these were printed at a cost of \$15.00.

*Second*, That the matter of a Year Book, of which committee Mrs. Eustace Allen is Chairman, be referred to Advisory and Executive Boards, because of lack of funds in Auxiliary treasury.

*Third*, That the matter of members affiliating with Auxiliaries in counties where they do not reside because their own Auxiliary is not functioning, be referred to Advisory and Executive Board meetings.

*Fourth*, In appreciation of the distinguished and untiring service rendered by Mrs. J. N. Brawner, first president of the Auxiliary, that she be made honorary president for life.

*Fifth*, That the Executive Board go on record as having paid silent tribute to their beloved member, Mrs. Allen H. Bunce, who recently passed on.

*Sixth*, That the following changes be made in the Rules for awarding the Brawner cup: (filed elsewhere).

Mrs. J. L. Nevil moved that these Resolutions be adopted by body. Motion carried.

The President announced the following committees:

*Nominating*: Mrs. Ralph Chaney, Chairman; Mrs. Harry Rogers, Mrs. Lehman Williams, Mrs. J. A. Redfearn, Mrs. H. E. Griggs, Mrs. J. C. Patterson, Mrs. H. C. Sauls.

*Auditing Committee*: Mrs. W. H. Myers, Mrs. M. T. Benson, Mrs. Claude E. Tessier.

*Resolutions Committee*: Mrs. C. L. Ayers, Mrs. Richard Torpin, Mrs. Ralph Freeman.

*Courtesy Committee*: Mrs. H. G. Banister, Mrs. E. S. Peacock, Mrs. E. R. Harris.

Mrs. Ralph Chaney moved that a committee be appointed to write resolutions upon the death of Mrs. Allen H. Bunce. Motion carried.

Adjourned.

MRS. CLEVELAND THOMPSON, *Rec. Sec.*

## FIFTEENTH ANNUAL CONVENTION

SECOND MEETING, APRIL 27, 1939

### ATLANTA

The second meeting of the Fifteenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the President, Mrs. Warren Coleman, at 9:30 A. M., Thursday, April 27, at Atlanta.

The Invocation was offered by Father John Emmert, Sacred Heart Catholic Church, Atlanta.

The address of welcome was made by Mrs. F. M. Barfield, Atlanta, president-elect of Fulton County Medical Auxiliary. Response was made by Mrs. Fred Rawlings of Sandersville.

The minutes of First Annual Session were read and approved for filing.

Mrs. Warren Coleman introduced Mrs. W. K. West, Oklahoma City, president of Auxiliary to Southern Medical Association. Mrs. West gave an inspiring address: "The Doctor's Wife."

Dr. W. H. Myers of Savannah, president-elect of the Medical Association of Georgia, gave a masterful discussion of "The Evolution in the Practice of Medicine."

Mrs. Charles P. Corn, Greenville, S. C., president-elect of Southern Medical Association, brought greetings from the South Carolina Auxiliary.

Mrs. Ed. Greene graciously presented the pages serving during the meeting.

The president presented Mrs. J. J. Clarke time-keeper.

Mrs. H. G. Banister presided while the president read her report of excellent work during the year. Mrs. Chaney moved it be accepted with rising vote of thanks.

Report of convention of Southern Medical Auxiliary in Oklahoma City was made by Mrs. Olin Cofer.

The report of president-elect, Mrs. Eustace Allen, was made and accepted. She has organized one new Auxiliary in Coffee County, and added 113 new members during the year.



The treasurer's report was read by Mrs. W. E. Mathews in the absence of Mrs. R. S. Woodbury. The auditor's report was read by Mrs. M. T. Brown. Mrs. J. N. Brawner moved that the treasurer's and auditor's reports be accepted and filed in minutes.

Report was made by historian, Mrs. C. C. Brannen, of Moultrie.

A loving and beautiful Memorial service was led by Mrs. W. A. Selman. She was assisted by Mrs. M. T. Benson, Jr., and Miss Charlotte Sage. Those who passed during the year were: Mrs. Floyd Rogers, Mrs. B. W. Young, Mrs. Bert Wagnon, Mrs. Allen H. Bunce.

Mrs. J. N. Brawner read resolutions on Mrs. Bunce. Mrs. W. A. Selman moved adoption. Motion carried.

Mrs. J. N. Brawner moved that reports of chairmen be voted on as a whole. Motion carried.

Reports were heard from the following chairmen: Scrapbook, Mrs. T. J. Ferrell, Waycross; Health Education, Mrs. H. G. Banister, Ila; Student Loan, Mrs. Robert Pendergrass, Americus; Health Film, Mrs. Ross Brown, Atlanta; Public Relations, Mrs. B. H. Minchew, Waycross; Legislation, Mrs. W. R. Dancy; Publicity, Mrs. Harry Rogers.

Reports read by Mrs. Lehman Williams were: Doctor's Day, Mrs. W. B. Schaefer, Toccoa; Research and Romance of Medicine, Mrs. Bonar White; Jane Todd Memorial, Mrs. John Persall; Revisions, Mrs. J. N. Brawner, Atlanta.

Delightful report of Auxiliary to American Medical Association convention in San Francisco was given by Mrs. J. N. Brawner.

Report of Credentials chairman, Mrs. F. M. Barfield, gave 175 as total registration for convention.

Report heard from Resolutions Committee, Mrs. C. L. Ayers, chairman. The following resolutions were presented:

Upon hearing report of Courtesy Committee, Mrs. E. R. Harris, chairman, Mrs. Ralph Chaney moved that a rising vote of thanks be given the hostesses for their delightful entertainment and courtesies.

The report of Chairman of Hygeia, Mrs. J. L. Nevil, was heard. Mrs. E. R. Harris moved it be accepted. Motion carried.

Under new business, Mrs. H. W. Birdsong of Athens, suggested that plans be started for celebration of Centennial of Crawford W. Long's first operation under ether anesthesia.

Mrs. Brawner moved that the matter be referred to Advisory Committee and Board of Trustees of Medical Association of Georgia. Motion carried.

Letter read by Mrs. Lehman Williams from Mrs. McCormick. Mrs. Dancy moved that the matter be left for incoming president to discuss with her executive board. Motion carried.

The report of the nominating committee was made by Mrs. Ralph Chaney as follows:

President—Mrs. Eustace Allen, Atlanta.

President-elect—Mrs. H. G. Banister, Ila.

First Vice President—Mrs. Lee Howard, Savannah.

Second Vice President—Mrs. C. H. Richardson, Milledgeville.

Third Vice President—Mrs. Loren Gary, Jr., Shellman.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Historian—Mrs. J. L. Nevil, Metter.

Student Loan—Mrs. Ralph Chaney.

Corresponding Secretary—Mrs. Olin Cofer, Atlanta.

Parliamentarian—Mrs. Lehman Williams.

Mrs. W. A. Selman moved that ballot be cast by secretary. The list of officers was declared duly elected.

Mrs. Coleman installed officers beautifully and affectionately.

Corsages were presented Mrs. W. A. Coleman, Mrs. Eustace Allen and Mrs. B. L. Shackleford from Fulton County Auxiliary.

Mrs. Allen accepted gavel and pledged her very best service to the organization during the coming year.

MRS. CLEVELAND THOMPSON,

*Recording Secretary.*

#### POST-CONVENTION MEETING OF EXECUTIVE BOARD—1939

Post-Convention Executive Board Meeting was called to order by Mrs. Eustace Allen immediately after adjournment of convention.

President asked for suggestions concerning celebration of Jane Todd Centennial.

Mrs. Ralph Chaney recommended that a Memorial be in form of a fund devoted to the research into diseases peculiar to women. Motion carried. Following committee appointed to plan some permanent memorial to Mrs. Allen H. Bunce, who had been president of Auxiliary to A. M. A.: Mrs. J. N. Brawner, Mrs. C. W. Roberts, Mrs. W. H. Myers, Mrs. M. T. Benson, Mrs. W. A. Selman, Mrs. Bonar White, Mrs. Eustace Allen.

Mrs. Harry Rogers moved that Corresponding Secretary write note of thanks to Mrs. John Toler for space in Constitution. Motion carried.

Mrs. Ralph Chaney was nominated from floor, chairman of Student Loan Fund. Unanimously elected.

Mrs. J. Bonar White graciously offered an award for best Scrapbook. Rising vote of appreciation and thanks was made to Mrs. White.

The president announced that she wished to add two standing committees of which she would appoint chairmen later—Archives and Scrapbook.

The following were present: Mrs. Ralph Chaney, Mrs. Bonar White, Mrs. J. N. Brawner, Mrs. Harry Rogers, Mrs. Lehman Williams, Mrs. C. H. Richardson, Mrs. Fred Rawlings, Mrs. H. G. Banister, Mrs. W. A. Coleman, Mrs. Eustace Allen, Mrs. Cleveland Thompson.

Adjourned.

MRS. CLEVELAND THOMPSON, Rec. Sec.

#### TREASURER'S REPORT, 1938-1939 CONDENSED

##### *Receipts*

Balance on hand . . . . .	\$ 72.22
Dues in arrears (40 members) . . . . .	30.00
Dues in arrears (7 members at large) . . . . .	10.50
Dues—Current (528 County members) . . . . .	396.00
Dues—Current (21 members at large) . . . . .	31.50
Refund by Mrs. Coleman . . . . .	11.02
Health Films Fund . . . . .	54.25

(Continued on page 299)

## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

### ANTIRABIC TREATMENT

The exaggerated conception of the laity regarding the infectiousness of rabies often places the physician in an embarrassing position, in that he is not any too sure himself just where to draw the line in deciding who shall and who shall not receive antirabic treatment. That the patient actually bitten by a rabid or suspicious animal should be protected involves no argument. But when it comes to the disposition of exposures other than actual bites, the physician must exercise firm and cool judgment. It is hoped that the following information may be helpful.

#### *Prevalence Among Animals*

Rabies is widely distributed among animals (chiefly dogs) throughout Georgia as well as all Southern and many Northern and Western States. During the past 16 years (1923-38) the State Department of Health Laboratories found rabies present in the brains of 7,003 animals. Of these about 92 per cent were dogs, 6 per cent cats, and 2 per cent cattle, horses, hogs, etc.

#### *Incidence of Human Rabies*

During the 18 year period (1921-1938) records of 58 human cases have been collected. This is an average of 3.2 cases per year. Further discussion of these will follow.

#### *Prophylactic Antirabic Treatments*

During the 18-year period antirabic treatment was furnished to 41,506 persons bitten by or exposed to rabid or suspicious animals. This is an average of 2,306 per year. The largest distribution was 3,445 in 1937, and the smallest 1,260 in 1928.

An analysis of 32,632 treatment records shows the following according to sex and race:

Sex: 21,333 males, or 65.37 per cent;  
10,299 females, or 34.63 per cent.

The ratio of males to females is about 2 to 1. This is to be expected since males are more frequently exposed.

Race: 29,256 whites, or 89.65 per cent;  
3,376 negroes, or 10.35 per cent.

The ratio of whites to negroes is about 9 to 1. Reference to this remarkable difference will be made in the discussion of human deaths.

#### *Nature of Exposure*

Space does not permit of detailed analysis of the nature of exposure, location of bites, etc. However, this data is available and will be presented later. Analysis of 7,605 records accumulated since 1935 shows that 4,587 persons treated were actually bitten, while 3,028 were treated for exposures other than

actual bites. Of the 4,587 persons treated for actual bites 1,985 were bitten by animals proven to be rabid by laboratory examination.

#### *Human Mortality*

As previously stated, 58 human deaths from rabies have been recorded during the 18 year period, 1921-1938, inclusive. Of this number 42 were white and 16 were negroes. Forty-nine were males and only 9 were females.

#### *Mortality in Persons Treated*

Of the 58 human deaths, 34 were receiving or had completed antirabic treatment at the time of onset. The histories of exposure of 3 of these are not complete. All of the remaining 31 gave histories of actual teeth wounds.

Location of Wounds	Severity of Wounds			Total
	Mild	Moderate	Severe	
Face and Head	0	4	12	16
Hands and Arms	3	4	6	13
Body	0	0	1	1
Feet and Legs	1	0	0	1
Total	4	8	19	31

This tabulation gives eloquent testimony of the relative seriousness of bites about the face and head, and of the extreme rarity of the disease resulting from bites on the legs and body. The protection of clothing, of course, is an important factor. Bites on the bare hands and arms rank second to face bites in seriousness.

#### *Low Incidence of Rabies in Negroes*

It is commonly believed that not only is the dog population greater, but also the proportion of stray and poorly cared for dogs is higher in predominantly negro communities. Hence one would expect that more negroes would be exposed than whites. Bearing in mind that the negro population constitutes about 35 per cent of the total the following facts are difficult to understand:

1. Only 10 per cent of the treatments furnished were for negroes.

2. Of the series of 58 deaths only 16 were negroes.

Whether or not the Negro race is more resistant to rabies than the white race is a question which is yet to be investigated. The low distribution of treatment for negroes may be due to the fact that the Negro is not prone to worry or become excited on exposure.

#### *Deaths from Exposures Other Than Actual Bites\**

Of the 58 fatalities recorded, the histories of 4 do not include the manner of exposure. Of the 54 having definite record of exposure, all were actually bitten or scratched by the teeth of the animal, 52 by dogs, 2 by cats.

Up to the present time, there is yet to be recorded an instance of rabies developing from exposure other than actual bites by the teeth of the rabid animal. (See footnote.)

#### Treatment Accidents

In this series of 42,506 antirabic treatments four cases of so-called treatment paralysis have been recorded. Two of these were fatal. Three of the four occurred in persons who had previously taken treatment. In no instance was there history of actual bite by a rabid dog.

#### Conclusion

1. While rabies in animals is widely prevalent, the disease in man is rare.

2. In spite of greater opportunity for exposure the incidence of rabies in negroes is much lower than in the white race.

3. Bites on the face and upper extremities are much more dangerous than those on the body and lower extremities.

4. *The possibility of man becoming infected with rabies from any exposure other than actual penetration of the skin and flesh by the teeth of the rabid animal is exceedingly remote.*

5. *Treatment paralysis while rare occurs more frequently than does rabies in persons not actually bitten. If physicians would bear these facts in mind, they would take a firmer stand in advising against treatment of indirect and remote exposures.*

T. F. SELLERS, M.D.,

Director of Laboratories.

\*Recently, 1939, a white female, age 14 years, died of rabies in a Macon hospital. The only history of exposure was that she was licked on the genitalia by a rabid dog 15 days before onset. While this could be considered as an instance of infection from exposure other than actual bite, it is still possible that this patient could have been bitten slightly.

#### WOMAN'S AUXILIARY DEPARTMENT

(Continued from page 297)

Student Loan donation	11.00
President's Pin Fund (Mrs. R. H. Chaney)	5.85
Exchange	.10

Total Receipts	\$622.44
Total Disbursements	511.63

Balance on Hand.....\$110.81

May 25, 1939.

In Georgia Railroad Bank.

MRS. R. G. WOODBURY, Treasurer.

#### Disbursements

President's Expense	\$ 86.63
Printing, Mimeographing, etc.	47.58
Corresponding Secretary's Expenses	2.82
Treasurer's Expense	3.50
Committee Expenses:	
Organization	32.03
Research in Medicine	1.39
Trophy	3.95
Doctor's Day	7.25
Scrapbook	.93

Publicity	2.22
Hygeia	1.75
Health Film	5.31
Convention Expense (State)	16.47
Convention Expense A. M. postage	1.70
National Dues in Arrears (47)	11.75
National Dues Current (549)	137.25
President's Pin	5.85
(Mrs. Chaney's share)	
President's Pins	78.00
(Auxiliary's Share)	
Funds Transferred to Savings Account	65.25
Total Disbursements	\$511.63

#### REPORT OF STUDENT LOAN FUND

1938 - 1939

Balance 1938	\$1,367.00
Donations:	
Ware County	\$ 20.00
Hart County	1.00
Randolph County	3.00
Habersham County	2.00
Troup County	2.00
Clarke County	15.00
Jackson County	1.00
Bibb County	41.00
Baldwin County	10.00
Barrow County	3.50
Washington County	4.00
Richmond County	25.00
Bulloch, Candler, Evans	
Counties	11.00
Fulton County	50.00
Dodge County	4.00
Savannah	50.00
Total	\$242.50
By Payments on Loans:	
Dr. B. E. Collins	124.70
Dr. R. W. McAllister	28.75
Total	395.95

GRAND TOTAL .....\$1,762.95

#### NEWS ITEMS

The Floyd County Medical Society met at the home of Mr. Owen Lively on June 7. A number of scientific papers were read. Barbecue dinner was served.

Dr. T. F. Abercrombie, Atlanta, director, State Department of Public Health, announces that the Department has established six regional offices located in the following cities: Albany, Waycross, Swainsboro, Griffin, Marietta and Gainesville. Each regional office will have a medical director, consultant nurse and a sanitary engineer.

The Chatham-Savannah Tuberculosis Association held its last meeting for this season on June 8. Meetings will not be held during the summer. The next meeting will be held on October 12.

Dr. Howard Hailey, Atlanta, was elected president of the Emory University Medical Alumni Association



at the close of the Emory Medical Alumni Clinics on June 2; Dr. Edgar Boling, Atlanta, first vice president; Dr. Kells Boland, Atlanta, second vice president; Dr. M. C. Pruitt, Atlanta, re-elected secretary-treasurer.

Dr. Braswell E. Collins, Waycross, has been elected to fellowship in the American Academy of Otolaryngology at a recent meeting of the Board held in St. Louis, Mo. Dr. Collins is associated in practice with Dr. B. H. Minchew, Waycross, former president of the Association.

The Georgia Medical Society, Savannah, met on June 13. Dr. Chas C. Hedges, Suffolk, Va., read a paper on "The Control of Advertising and Its Integration with the Health Program"; Dr. E. J. Whelan, Savannah, reported a case, "Intracapsular Fracture of the Neck of the Femur"; Dr. J. K. Quattlebaum, Savannah, showed a moving picture in colors which was made in Savannah.

The Macon Medical Society of Bibb County met on June 6. Dr. Robert B. Greenblatt, Augusta, reported on the "Study and Treatment of Amenorrhea and Menometrorrhagia".

Dr. H. A. Seaman and Dr. C. A. Witmer, both of Waycross, entertained members of the Ware County Medical Society at dinner at the Phoenix Hotel, Waycross, on June 7. Dr. K. C. Walden, Waycross, read a scientific paper.

The last meeting for the summer of the staff of the Georgia Baptist Hospital, Atlanta, was held on June 20. Dr. T. I. Willingham, Atlanta, prepared the program. Dr. Hal M. Davison, Atlanta, is secretary.

The secretary-treasurer has an inquiry for a physician to locate at what is claimed to be an excellent place to practice.

Dr. Roy R. Kracke, Emory University, spoke before the Atlanta Rotary Club June 19 on sulfanilamide and stated that the drug comes nearer to destroying all bacteria than any other agent.

The Southeastern Section of the American Congress of Physical Therapy met at the Hotel George Washington, Jacksonville, Florida, July 10. Georgia physicians on the program were: Dr. Chas. E. Irwin, Warm Springs; Dr. J. Calvin Sandison, Atlanta; and Dr. Lawson Thornton, Atlanta; Dr. T. G. Smaha, Griffin; Dr. Hal M. Davison, Dr. Mason I. Lowance and Dr. William R. Crowe, Jr., all of Atlanta; Dr. L. B. Dunn, Savannah; and Dr. Kenneth McCullough, Waycross. Other prominent speakers on the program came from the Mayo Clinic, Rochester, Minn.; American Medical Association, Chicago, and the University of Illinois College of Medicine, Chicago.

Dr. O. D. Hall has resumed practice at the Georgia Baptist Hospital, Atlanta, since he recovered from a recent illness.

The Savannah News, Savannah, reported in its June 14 issue that the Georgia Medical Society went on record as favoring the Group Hospitalization Plan at the Society's meeting on the 13th.

The Sixth District Medical Society met in the Rose Theater, Forsyth, June 29. Titles of papers on the scientific program were: "Observations on the Use of

Sulfapyradine in the Pneumonias" by Dr. Hall Farmer and Dr. J. Fletcher Hanson, Macon; "Diagnosis and Treatment of Dementia Paralytica", Dr. J. R. S. Mays and Dr. Y. H. Yarbrough, Milledgeville; "The Sciatic Syndrome, Its Causes and Treatment", Dr. Exum Walker, Atlanta; "Pyelonephritis in Pregnancy", Dr. Wallace L. Bazemore and Dr. Willard R. Golsan, Macon (Film); "The Management of Breech Presentation", Dr. H. J. Bickerstaff, Division of Child Hygiene, State Department of Public Health, Atlanta; "Some Medical Problems of Georgia" Dr. J. C. Patterson, Cuthbert, president-elect of the Medical Association of Georgia.

The Medical and Surgical Section of the Association of American Railroads met at the Stevens Hotel, Chicago, Illinois, June 15-16. Dr. J. R. Garner, Atlanta, chairman of the Committee on Disability and Rehabilitation, made the annual report for the committee. Dr. Garner is chief surgeon for the A. & W. P. R. R., Western Railway of Alabama and the Georgia Railroad.

Members of the Bulloch-Candler-Evans Counties Medical Society were entertained at the Rushing Hotel, Statesboro, June 14.

Dr. Thomas B. Phinzy, Augusta, Richmond county commissioner of health, wrote an article for the Augusta Chronicle on "The Workings of the Richmond County Department of Health". He described tuberculosis as one of the hardest problems faced by the Department. Other articles on various other diseases will be prepared by the Health Department for the Augusta newspapers from time to time.

Dr. John L. Elliott, Savannah, medical director of the Chatham-Savannah Tuberculosis Association, attended the annual meeting the National Tuberculosis Association held in Boston, June 26, 27, 28.

The Third District Medical Society met at Vienna on June 21. Speakers on the program included: Dr. Chas. E. McArthur, Cordele; Dr. H. A. Mobley, Vienna; Dr. Earl Floyd, Dr. J. L. Pittman and Dr. Exum Walker, Atlanta; Dr. Wallace L. Bazemore and Dr. Willard R. Golsan, Macon; Dr. Geo. S. Murray, Dr. Francis Blackmar and Dr. Edward Storey, and Dr. John E. Walker, Columbus; Dr. Lewis Abram, and Dr. T. E. Bradley, Fitzgerald; Dr. S. A. Scruggs, Americus; Dr. Steve P. Kenyon, Dawson; Dr. W. A. Coleman, Eastman; Dr. P. L. Williams, Cordele; Dr. C. P. Savage, Montezuma; Dr. M. L. Malloy, Vienna. Dr. William H. Myers, Savannah, president of the Association, was a guest speaker.

Among the Georgia women listed in "Who's Who" in the Biographical Dictionary are Dr. Leila D. Denmark, Atlanta, pediatrician; and Dr. Mary J. Erickson, Thomasville, pathologist.

Members of the Fulton County Medical Society were guests of the Aristocrat Dairy Products Company at a barbecue given at the Holtsinger & Patterson Dairy, Decatur, Route 1, June 28.

The Chattahoochee Valley Medical Association met at Radium Springs, Albany, July 11, 12, 13. Officers of the Association include Dr. Guy J. Dillard, Columbus, second vice president; and Dr. Frank K. Boland,

Atlanta, secretary-treasurer. Georgia physicians on the scientific program were: Dr. J. A. Redfearn, Albany; Dr. Allen H. Bunce, Atlanta; Dr. Ernest F. Wall, Thomasville; Dr. Carter Smith, Atlanta; Dr. Thomas L. Ross, Macon; Dr. E. Van Buren, Atlanta; Dr. William H. Myers, Savannah, president of the Medical Association of Georgia; Dr. J. M. Barnett, Albany; Dr. C. W. Roberts, Atlanta; Dr. S. Ross Brown, Atlanta; Dr. W. F. Castellow, Americus; Dr. Joseph H. Boland, Atlanta; Dr. A. Park McGinty, Atlanta; Dr. Arthur G. Little, Thomasville; Dr. C. A. Stammel, Lt. Col., U. S. Army, Fort Benning; Dr. James J. Clark, Atlanta; Dr. A. H. Hilsman, Albany; Dr. Harold P. McDonald, Atlanta; Dr. Exum Walker, Atlanta; Dr. E. F. Fincher, Atlanta; Dr. J. W. Turner, Atlanta; Dr. J. C. Patterson, Cuthbert, president-elect of the Medical Association of Georgia; Dr. Gordon Chason, Bainbridge; Dr. B. T. Beasley, Atlanta; Dr. J. P. Tye, Albany; Dr. Joseph Yampolsky, Atlanta; Dr. T. F. Abercrombie, Atlanta; Dr. C. D. Whelchel, Gainesville; Dr. Frank K. Boland, Atlanta; Dr. Guy J. Dillard, Columbus; Dr. G. S. Murray, Columbus; Dr. D. Henry Poer, Atlanta; Dr. Champ Holmes, Atlanta; Dr. R. B. Wilson, Atlanta; Dr. Rudolph Bell, Thomasville; Dr. W. L. Bazemore, Macon; Dr. Earl Floyd, Atlanta; Dr. James L. Pittman, Jr., Atlanta; Dr. J. C. Keaton, Albany; Dr. Charles H. Watt, Thomasville; and Dr. Marion C. Pruitt, Atlanta.

The Macon Medical Society of Bibb County met at Ridley Hall on July 4. Dr. J. D. Bradley, Macon, read a paper entitled "Bronchial Asthma".

Dr. K. C. Walden and the staff of the A. C. L. Hospital, Waycross, entertained the members of the Ware County Medical Society, July 5. After dinner was served, G. R. Lovelace, D. D. S., read a paper on "Focal Infections from the Dentist's Standpoint."

#### OBITUARY

*Dr. Samuel A. Boland*, Loganville; member; Chattanooga Medical College, Chattanooga, Tenn., 1896; aged 67; died in an Atlanta hospital on May 24, 1939. He was a native of South Carolina. Dr. Boland was well known in many counties of the State. He had practiced in Statham, Thomson, Jefferson and Loganville. Dr. Boland had many warm personal friends. He took an active interest in civic and religious affairs. He was a member of the Walton County Medical Society, F. & A. M., Scottish Rite Masons and the Loganville Baptist church. Surviving him are his widow, one daughter, Mrs. James W. Carroll, Sparta. Funeral services were conducted from the Loganville Baptist church. Burial was in the Loganville cemetery.

*Dr. Felix M. Prior*, Apalachee; member; College of Physicians and Surgeons, Baltimore, Md., 1893; aged 76; died on May 24, 1939, at his home after a long illness. He practiced medicine in and near his home community for many years until disabled by illness. Dr. Prior was a useful citizen and loved by hundreds of friends. He was a member of the Morgan County Medical Society and the Apalachee Baptist church. Surviving him are one daughter, Miss Rena Prior; two

sons, Harold and Ralph Prior. Rev. W. S. Adams and Rev. F. E. Jenkins officiated at the funeral services conducted from the Apalachee Baptist church. Burial was in the Prior cemetery. The following physicians were honorary pallbearers: Dr. Dan M. Carter, Madison; Dr. W. M. Fambrough, Bostwick; Dr. W. C. McGeary and Dr. J. H. Nicholson, both of Madison; and Dr. J. L. Porter, Rutledge.

*Dr. William W. Carmichael*, Hampton; member; Southern Medical College Atlanta, 1886; aged 74; died at his residence on June 7, 1939. He was a native of Coweta county and a member of one of its most prominent families. Dr. Carmichael practiced for a number of years at Sargent in Coweta county and then moved to Hampton where he practiced until disabled. Surviving him are his widow, three daughters: Mrs. W. T. Lee, Birmingham, Ala.; Mrs. J. B. Dickenson and Miss Marian Carmichael, both of Atlanta. Rev. B. L. Barton officiated at the funeral services conducted from the Berea church. Burial was in the churchyard.

*Dr. Robert E. Wilson*, Cartersville; member; Atlanta School of Medicine, Atlanta, 1906; aged 72; died at his home on June 2, 1939. He had practiced medicine for more than thirty years and continued until two days before his death. Dr. Wilson was continuously engaged in some civic or religious undertaking always for the betterment of his community. Those who knew him best say that his life was filled with years of usefulness. He was a member of the Bartow County Medical Society for many years. Masons, Shrine, Methodist church and served as steward for many years, also superintendent of the Sunday school. Surviving him are his widow, two daughters, Mrs. Frances Huey, Shreveport, La., and Mrs. Carl Waldrup, Decatur; one son, Robert E. Wilson, Jr., Cartersville. Rev. Walter Crawley and Rev. Guy N. Atkinson officiated at the funeral services conducted from the residence. Burial was in the Cartersville cemetery.

*Dr. Lamar Preston Fordham*, Pavo; Atlanta College of Physicians and Surgeons, Atlanta, 1902; aged 59; died at his home on June 9, 1939. He had been sick for about one year. Dr. Fordham resided at Alamo until seventeen years ago when he moved to Pavo. Surviving him are his widow, two daughters, Miss Jewell Fordham, Tifton; and Miss Hazel Fordham, Pavo. Funeral services were conducted at the Pavo Methodist church.

*Dr. Harvey Hoyt Kemp*, Senoia; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1894; aged 83; died on June 17, 1939, at his home. He had been in ill health for several years. Dr. Kemp began practice in Marietta and in 1904 moved to Senoia where he practiced until disabled a few years ago. He was a prominent citizen and held in high esteem by many friends. Surviving him are his widow, three daughters; Mrs. Carl Hamby, Marietta; Mrs. Charles Cowan and Mrs. Harmon Connor, Cartersville; one son, J. Hugh Kemp, Marietta; three sisters, Misses Nannie and Jessie Kemp, Marietta, and Mrs. J. J. Wright, Powder Springs; one brother, Dr. W. M.



Kemp, Marietta. Rev. J. E. Hannah and Rev. M. O. Summers officiated at the funeral services conducted from the Midway Presbyterian church, near Marietta. Burial was in the churchyard.

*Dr. Robert Anderson Brown*, Aragon; University of Georgia School of Medicine, Augusta, 1894; aged 67; died of pneumonia April 12, 1939. He was a native of Buchanan. Dr. Brown has practiced in Aragon and community for more than twenty years. He was a prominent physician of Polk County and held in high esteem by hundreds of acquaintances. Surviving him are his widow, two daughters: Mrs. Hugh Gaston, Aragon, and Mrs. Odell Wood, Rome; three sons, Doyle and Robert Brown, Aragon; and Claude Brown, Atlanta. Rev. J. C. Smith officiated at the funeral services conducted from the Aragon Baptist church. Burial was in the Aragon cemetery.

*Dr. Roy Samuel George*, Atlanta; Atlanta School of Medicine, Atlanta, 1910; aged 50; died at his home on May 5, 1939, after a long illness. He was a native of Atlanta and received both his literary and professional education in Atlanta. He had practiced medicine for more than twenty-five years. Surviving him are his widow, one daughter, Miss Irene Johnson, his mother and five sisters. Rev. C. R. Stauffer officiated at the funeral services conducted from Spring Hill chapel. Burial was in Greenwood cemetery.

*Dr. Henry LaFayette Long*, Leesburg; Atlanta College of Physicians and Surgeons, Atlanta, 1899; aged 71; died in an Albany hospital on April 16, 1939. He had practiced in Leesburg for almost forty years. Dr. Long was known in Lee and adjoining counties by many friends. Surviving him are one daughter, Dorothy Long, Albany; two sons, Henry and John Long, Albany. Rev. Otis Howard assisted by Rev. R. H. Forrester, officiated at the funeral services conducted from the Callaway Memorial Baptist church at Leesburg.

*Dr. Eugene C. Brown*, Hawkinsville; member; Atlanta College of Physicians and Surgeons, Atlanta, 1900; aged 61; died at his home on May 9, 1939. He was a native of Houston county and received his early education in Gordon Military Institute at Barnesville. Dr. Brown took post-graduate work in New York after he received his degree in medicine. He had an extensive practice in Pulaski and adjoining counties. He held a number of offices in civic organizations, was president of the Hawkinsville Country Club, chairman of the Hawkinsville Board of Education, and manager of the city government of Hawkinsville. Dr. Brown was a member of the Ocmulgee Medical Society, composed of the counties of Bleckley, Dodge and Pulaski, and the Methodist church. Surviving him are his widow, two sons, Ben Brown of Hawkinsville; and Eugene Brown of Macon. Rev. J. Alton Davis officiated at the funeral services conducted from the residence. Burial was in Orange Hill cemetery. Honorary pallbearers included physicians from Macon, Hawkinsville, Cochran, Perry, and Finleyson.

In China there is only one modern trained physician for every 30,000 inhabitants, compared with one for every 768 in the United States.—Orleans Parish Medical Society Bulletin, June 12, 1939.

## BOOK REVIEWS

*Varicose Veins*. By Alton Ochsner, William Henderson, Professor of Surgery and Director of Department of Surgery, School of Medicine, Tulane University of Louisiana, New Orleans, and Howard Mahorner, Assistant Professor of Surgery, School of Medicine, Tulane University of Louisiana, New Orleans. Cloth. Price \$3.00, pp. 147, with illustrations. Publisher: C. V. Mosby Company, St. Louis, 1939.

This is an excellent monograph on a common and important subject. Besides a good historical review, there are chapters on the anatomy, pathology, etiology and physiology of varicose veins. The clinical aspects of the different types are illustrated. The various tests for determining the extent of the varicosities and the competency of the valves, both in the superficial and communicating veins, are discussed in detail and is the most important section in the book. Treatment by operation and injections, or by the combination of these methods, is outlined and well illustrated by drawings and photographs. The book is profusely illustrated throughout which aids greatly in understanding the condition, particularly in the carrying out of the various tests. Except for a few photographs the illustrations are excellent. There is an extensive bibliography of benefit to anyone wishing to go deeper into the subject. The printing and binding are both of the highest quality. This book may well be in the library of any doctor who is treating varicose veins.

D. C. ELKIN, M. D.

*Organized Payments For Medical Services*. By the Bureau of Medical Economics, American Medical Association. Paper, pp. 185. Chicago: American Medical Association, 1939.

It would stretch the imagination of a social planner to devise any scheme for the organized payment for medical services that is not described in this publication of the Bureau of Medical Economics of the American Medical Association on "Organized Payments for Medical Services." Several hundred plans for medical care of the indigent involving governmental support and medical society management are explained. Social Security legislation has brought about changes in medical arrangements reaching into almost every locality in the United States and affecting health departments, medical societies, and state and local governments. Types of plans proposed by the Farm Security Administration to provide medical services to Administration clients in 127 counties and covering 100,000 low income families are described. Medical societies have organized postpayment and prepayment plans of medical care offering a wide selection of types. Some provide for a cash indemnity to be paid to the insured with which he can purchase his own medical service and others provide medical service directly.

Industries, unions, fraternal organizations, and all sorts of mutual societies provide medical benefits for their members by a variety of prepayment devices. Some 3,000,000 persons are covered by group hospitalization plans, which show a wide variety of relations with state and county medical societies. Commercial insurance companies, all of whom pay benefits in cash, are also entering this field on a large scale. It



is estimated that approximately \$300,000,000 in cash is paid out annually by insurance companies to assist in paying medical bills.

The House of Delegates of the American Medical Association has endorsed cash indemnity prepayment plans, but has not sought to prohibit any of its component societies from cooperating with or organizing other types of prepayment for medical service provided their character is not such as to render it impossible to give good medical service.

The number and variety of the plans for medical services—operating and proposed, postpayment and prepayment, service and cash, medical society and other organization sponsored—give proof of the efforts that are being made to supplement the private practice of medicine and indicate a desire to discover, by social experimentation, a solution of local medical problems.

*Cutaneous Cancer and Precancer*, by MacKee & Cipollaro. This work of Drs. MacKee and Cipollaro is praiseworthy. It should be available to all physicians—specialists or otherwise. There is no branch of medicine in which the correct and early diagnosis is of more importance than in cancer work, and this applies to skin cancer as well as to internal cancer. In the first chapter, we learn that six per cent of the deaths from cancer originate in the skin and mucous membranes. The authors also show that there has been a two per cent yearly increase in cancer mortality since 1930. Throughout this book are many valuable and interesting statistics which are stimulating and enlightening.

The second chapter deals with precancerous lesions with a description of each type clinically in a simple, non-technical manner. Physicians not familiar with these potentially dangerous lesions will gain much benefit from this chapter.

True epitheliomas are related in detail in a chapter of its own. Here the authors give an excellent differential diagnosis between the basal cell and the squamous cell epitheliomas, emphasizing the importance of biopsy for final confirmation of the diagnosis.

In the fourth chapter, treatment is touched on lightly, outlining the various procedures and describing the accepted methods of choice. The danger of adhering to one stereotyped course rather than to a combination as the individual case may determine is pointed out.

The features of this 212-page monograph which place it among the accepted and commendable group are: The invaluable statistics gathered from the work of eminent authors of both the old and new world; the numerous well chosen references at the conclusion of each chapter, enabling the student to trace any particular field of cancer work in minute detail; the beautiful and well selected micropathologic sections (these excellent photographs are present in abundance, taking up about one-half the pages); and finally, the clear, concise, easy style of the authors makes the reading one of pleasure rather than work.

HOWARD HAILEY, M.D.

The American Association for the Study of Goiter will hold its next annual meeting in Washington, D. C., September 12, 13, 14, 1939, in conjunction with the Third International Goiter Conference. In addition to many prominent speakers who reside in the principal cities of the United States, there will be speakers from Switzerland, Germany, Hungary, France, Italy, Cuba, Canada, Argentine and Roumania.

## SUGGESTIONS FOR THE INSTITUTION OF A CAMPAIGN ON COMBATING CONTACT IN- FECTIONS BY THE STATE COMMITTEE ON CONTACT INFECTIONS OF THE AMERICAN COLLEGE OF PEDIATRICS

The State Committee wishes to enlist the interest of the profession of the State to help us combat contact infections in the following manner:

### A. *Education of Medical Profession.*

1. Appoint a committee of one or more pediatricians or general practitioners in every county and city of the State.
2. Get the county or local medical society to endorse the principle of "Healthy Adults in Contact with Children" and their co-operation in the program for periodic medical examination of adults.
3. Read papers and discuss this subject at medical society or hospital staff meetings.
4. Publication of articles in local medical bulletins.
5. Distribute literature on Contact Infections to all physicians in each community.
6. Get cooperation of laboratories and radiologists so that charge for Wassermann test and lung x-ray will be at low rate.

### B. *Education of Laity.*

1. Persuade each local paper to publish prepared article stating the object of the campaign and some reasons for its furtherance.
2. Contact all P. T. A. groups, Women's Clubs, Men's Service Clubs, Junior League, etc. Furnish them with educational material. Encourage them to devote a portion of a meeting to the reading of a prepared article.
3. Contact all Boards of Education and encourage periodic examination of the teachers.
4. Contact Tuberculosis and Public Health Associations for cooperation.
5. Contact all employment agencies and explain purpose of campaign. Encourage them to help educate the domestics and to furnish "Health Certified" domestics and nursemaids who hold "Health Cards".
6. Distribute literature such as the leaflet, "For the Sake of the Children" to mothers, through the physician's offices.

All examinations must include an x-ray of the chest and a Wassermann test, to be of any value in this campaign. The method of financing must be left to the discretion of each locality.

Literature for distribution to physicians and to the laity will be furnished, on request, by the National Committee. Information regarding details, methods for conducting a campaign and data useful in talks and articles may be obtained from this Committee.

LINTON GERDINE, M. D., ATHENS

MERCER BLANCHARD, M. D., COLUMBUS

JOSEPH YAMPOLSKY, M. D., ATLANTA

*State Committee on Contact Infections of  
the American Academy of Pediatrics*

COMMUNICATIONS  
HISTORY

To the Editor:

In a recent article of mine entitled, "Doctors of the Past Who Have Contributed to the Making of Atlanta Medicine of the Present," published in the March, 1939 number of *The Journal*, the following lines appeared:

"It is generally recognized that Dr. W. P. Nicolson, Sr., did the first appendectomy in Atlanta, the patient being a young dental student. A good many were under the impression that an appendectomy performed later by Dr. Floyd W. McRae, Sr., on Governor W. Y. Atkinson was the first in Georgia."

A letter from my cousin, Dr. O. H. Weaver, of Macon, Ga., March 27, 1939, called my attention to the above statements in which he said: "I am reasonably certain that he (W. Y. Atkinson) was operated on by Dr. J. B. S. Holmes instead of by Dr. Floyd W. McRae as you state. It was my understanding, too, that this was the first appendectomy performed in Georgia, though Dr. Nicolson's case may hold priority."

After promising Dr. Weaver to investigate the matter further, I find from a most accurate source that the true history of the operation on Governor Atkinson was as follows:

When Governor Atkinson was taken ill, Dr. J. B. S. Holmes was his private physician. He was called in to see the Governor and as there was much concern about his condition, other doctors were called in consultation, including Dr. W. P. Nicolson, Sr., and Dr. Floyd W. McRae, Sr.

When Dr. Nicolson appeared at the mansion for consultation, Mrs. Atkinson met him and requested that he see the Governor immediately. When he stated that he would wait for the other consultants, she insisted that he not wait as she wished each of the doctors to see him independently of the others as she wanted each one to form his opinion separately.

When it was decided that an operation was indicated, the Governor was transferred to Dr. Holmes' private sanitarium, The Halcyon, and Dr. Holmes associated Dr. W. P. Nicolson, Sr., with him in the operation. So the credit should go to Dr. Holmes and Dr. Nicolson, Sr., for the actual appendectomy on Governor Atkinson.

It is true that Dr. McRae was called in consultation with them prior to the operation.

I will appreciate it if you will publish this correction for the sake of true medical history in Georgia.

J. CALVIN WEAVER, M.D.

Atlanta, Ga., June 17, 1939.

#### CONTROL OF YELLOW FEVER

Dr. T. F. Abercrombia,  
Director, State Department of Health,  
Atlanta, Georgia.

Dear Doctor Abercrombie:

You are no doubt familiar with the excellent results which have been obtained in recent months in the control of yellow fever in South America by the immunization of persons exposed to, or living in, infected areas. Over one million such vaccinations have been performed in Rio de Janeiro and adjoining states.

The Public Health Service offers vaccination against yellow fever to medical personnel in infectible territory of this country. It is hoped by this means that a nucleus of immunes may become available to be called on for immediate assistance in combating the disease should an outbreak occur.

This office would be glad to receive your comments on this proposition. In the event the idea meets with your approval, it is suggested that you determine, through the various county health officers, county medical societies, and other organizations, whether a sufficient number of persons would desire vaccination to make it worth while detailing an officer of the Service to vaccinate them. If it should appear that a considerable number of persons desire such vaccination, an officer of the Service will be designated to confer with you or with officers of your organization to arrange the best method of putting the proposal into effect.

The vaccine used would be that supplied by the Rockefeller Foundation. It is administered in a single injection and in the great majority of cases causes very little or no discomfort. In a small proportion of cases, there has appeared a slight rise of temperature with some malaise on the seventh or eighth day.

By direction of the Surgeon General.

Respectfully,

C. L. WILLIAMS,

Washington, D. C.

April 27, 1939

Assistant Surgeon General,

Foreign Quarantine Division.

#### ARTICLES ACCEPTED BY COUNCIL ON PHARMACY AND CHEMISTRY OF THE A. M. A.

TO THE EDITOR:

In addition to the articles enumerated in our letter of March 31 the following have been accepted:

Abbott Laboratories

Tablets Barbitol Sodium-Abbott, 5 grains.

Armour Laboratories

Suprarenalin Solution 1:1,000 in 1 cc. Ampules  
(For Hypodermic Use).

Suprarenalin Solution 1:1,000 in 10 cc. Vials  
(For Hypodermic Use)

Suprarenalin Solution 1:1,000 in 1 oz. Bottles  
(For Hypodermic Use).

Suprarenalin Solution 1:1,000 in 1 cc. Ampules  
(For Hypodermic Use).

Cutter Laboratories

Ampoules Iodobismitol with Saligenin, 2 cc.

Gane's Chemical Works, Inc.

Racephedrine Hydrochloride.

The National Drug Co.

Undulant Fever Vaccine (Abortus and Suis)

Undulant Fever Vaccine (Melitensis)

Sharp & Dohme

Antipneumococcic Serum Type II, Refined and Concentrated—Mulford.

Antipneumococcic Serum Type VII, Refined and Concentrated—Mulford.

The Upjohn Company

Ampoule Solution Sodium Morrhuate 5% with Benzyl Alcohol 2%, 2 cc.

Solution Sodium Morrhuate 5% with Benzyl Alcohol 2%, 30 cc. vials.

Ampoule Solution Sodium Morrhuate 10% with Benzyl Alcohol 2%, 2 cc.

Solution Sodium Morrhuate 10% with Benzyl Alcohol 2%, 30 cc. vials.

Tablets Sulfanilamide, 5 grains.

Tablets Sulfanilamide, 7½ grains.

PAUL NICHOLAS LEECH.

Secretary, Council on Pharmacy  
and Chemistry.

Chicago, May 2, 1939.

#### TRUTH ABOUT MEDICINE—NEW AND NONOFFICIAL REMEDIES

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Non-official Remedies:

Mead's Nicotinic Acid Tablets, 20 mg.—Each tablet contains nicotinic acid (*The Journal*, July 2, 1938, p. 27), 20 mg. Mead Johnson & Co., Evansville, Ind.

Nicotinic Acid—Abbott. A brand of nicotinic acid—N.N.R. (*The Journal*, July 2, 1938, p. 27). It is marketed in the form of tablets, 50 mg. and 100 mg. Abbott Laboratories, North Chicago, Ill.

Stovarsol Tablets, 0.1 Gm.—Each tablet contains stovarsol (*New and Nonofficial Remedies*, 1938, p. 100), 0.1 Gm. Merck & Co., Inc., Rahway, N. J.

Stovarsol Tablets, 0.05 Gm. Each tablet contains stovarsol (*New and Nonofficial Remedies*, 1938, p. 100), 0.05 Gm. Merck & Co., Inc., Rahway, N. J.

Hypodermic Tablets Digitalin (German. Pure, Merck), 0.00065 Gm., 1/100 grain—Upjohn. Each tablet contains digitalin, "German" (*New and Non-official Remedies*, 1938, p. 191), 0.00065 Gm., 1/100 grain. The Upjohn Company, Kalamazoo, Mich.

Tuberculin Ointment (Wolff)—Lilly (*New and Nonofficial Remedies*, 1938, p. 408). A culture of human tubercle bacilli (H-37) of four weeks' growth in glycerin broth, sterilized, evaporated to one-fifteenth its original volume and triturated to a smooth mixture, to which 0.4 per cent of phenol is added as a preservative. It is proposed for use as a tuberculin test by the patch method. Marketed in packages of one 2 Gm. collapsible tube with a 2 Gm. control tube. Eli Lilly & Co., Indianapolis, Ind. (*J.A.M.A.*, April 1, 1939, p. 1257.)

Cinchophen—The Upjohn Company. A brand of cinchophen—N.F. (*New and Nonofficial Remedies*, 1938, p. 177). The product is marketed in the form of tablets, 5 grains and 7½ grains. The Upjohn Company, Kalamazoo, Mich.

Nicotinic Acid—Merck. A brand of nicotinic acid—N.N.R. (*The Journal*, July 2, 1938, p. 27). Merck & Co., Rahway, N. J.

Solution Liver Extract Purified—Lilly. A sterile aqueous solution of liver extract purified preserved with 0.5 per cent phenol, containing 15 U.S.P. units per cubic centimeter. Solution liver extract purified—Lilly is proposed for intramuscular injection in the treatment of pernicious anemia. It is marketed in packages of three 1 cc. rubber-stoppered ampules. Eli Lilly & Co., Indianapolis, Ind. (*J.A.M.A.*, April 22, 1939, p. 1591.)

The Medical Association of Georgia will meet in Savannah, April 23, 24, 25, 26, 1940.

#### ARTICLES ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE A. M. A.

To the Editor:

In addition to the articles enumerated in our letter of May 2 the following have been accepted:

Calco Chemical Co., Inc.

Sulfapyridine-Calco

Tablets Sulfapyridine-Calco, 0.5 Gm. (7.7 grains)

Lederle Laboratories, Inc.

Sulfapyridine-Lederle

Tablets Sulfapyridine-Lederle, 0.5 Gm. (7.7 grains)

Eli Lilly & Co.

Estriol-Lilly

Pulvules Estriol, 0.06 mg.

Pulvules Estriol, 0.12 mg.

Pulvules Estriol, 0.24 mg.

Estrone-Lilly

Ampoules Estrone in Oil, 0.1 mg.

Ampoules Estrone in Oil, 0.2 mg.

Ampoules Estrone in Oil, 0.5 mg.

Ampoules Estrone in Oil, 1.0 mg.

Suppositories Estrone, 0.2 mg.

Merck & Co., Inc.

Riboflavin-Merck

Ampules Riboflavin-Merck, 10 mg.

Ampules Riboflavin-Merck, 100 mg.

Riboflavin-Merck, 1 Gm. Bottle.

Sulfapyridine-Merck

Tablets Sulfapyridine - Merck, 0.5 Gm. (7.7 grains)

The National Drug Co.

Undulant Fever Vaccine (Abortus an Suis)

Undulant Fever Vaccine (Melitensis)

PAUL NICHOLAS LEECH, Secretary  
Council on Pharmacy and Chemistry.

#### TRUTH ABOUT MEDICINES

*New and Nonofficial Remedies*

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Non-official Remedies:

Sulfapyridine.—(To the Editor: An abstract of the Council's statement on the actions, uses and dosage of sulfapyridine is impossible. It is suggested that you refer your readers to the description which appears on page 1831 of *The Journal*, May 6, 1939.)

Ampoule Solution Sodium Morrhuate 5 per cent with Benzyl Alcohol 2 per cent, 2 cc.—Each cubic centimeter contains sodium morrhuate (*New and Non-official Remedies*, 1938, p. 448) 0.05 Gm. (3/4 grain) and benzyl alcohol 0.02 Gm. (1/3 grain) in aqueous solution. The Upjohn Company, Kalamazoo, Mich.

Solution Sodium Morrhuate 5 per cent with Benzyl Alcohol 2 per cent, 30 cc. Vials.—Each cubic centimeter contains sodium morrhuate (*New and Non-official Remedies*, 1938, p. 448) 0.05 Gm. (3/4 grain) and benzyl alcohol 0.02 Gm. (1/3 grain) in aqueous solution. The Upjohn Company, Kalamazoo, Mich.



Ampoule Solution Sodium Morrhuate 10 per cent with Benzyl Alcohol 2 per cent, 2 cc.—Each cubic centimeter contains sodium morrhuate 0.1 Gm. (1-1/2 grains) and benzyl alcohol 0.02 Gm. (1/3 grain) in aqueous solution. The Upjohn Company, Kalamazoo Mich.

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Concentrated Antipneumococcic Serum, Types IV and VIII-Squibb.—An antipneumococcus serum, types IV and VIII combined (*The Journal*, June 18, 1938, p. 2082) prepared by immunizing horses with intravenous injections of cultures of types IV and VIII pneumococci. The serum is refined and concentrated by the method of Lloyd D. Felton. The usual sterility and safety tests are made, as required by the regulations of the U. S. Public Health Service. It is marketed in vials containing 20,000 and 50,000 units respectively of each type. E. R. Squibb & Sons, New York.

Concentrated Antipneumococcic Serum, Types V and VII-Squibb.—An antipneumococcus serum, types V and VII combined (*The Journal*, June 18, 1938) prepared by immunizing horses with intravenous injections of cultures of types V and VII pneumococci. The horses are bled aseptically and the serum is refined and concentrated by the method of Lloyd D. Felton. The usual sterility and safety tests are made, as required by the regulations of the U. S. Public Health Service. The product is marketed in packages of one vial containing 20,000 and 50,000 units respectively each of types V and VII. E. R. Squibb & Sons, New York.

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## SYMPOSIUM ON INDUSTRIAL SURGERY

### SOME PROBLEMS OF INDUSTRIAL PRACTICE\*

#### *Special Reference to Treatment*

ROBERT L. RHODES, M.D.  
*Augusta*

There is an old Proverb that "children should be seen and not heard"; certainly they should not be presumptive and participate in highbrow discussions. It having fallen to my lot to formally present to you Georgia's youngest medical child, The Georgia Industrial Surgeons' Association, by being assigned the first place in this symposium, I shall bear this Proverb in mind and confine my remarks to several of the fundamental principles confronting the industrial surgeon. In particular I shall comment upon the management at the plant at the time the injury is sustained, so-called minor injuries with obvious equal bearing upon major injuries and their treatment by the surgeon. Another old Proverb may well be borne in mind, "If you can't do any good, be sure you don't do any harm."

Major injuries, such as severe lacerations, macerations, fractures and others are very promptly placed in the hands of the surgeon, but only too often injuries classed as minor or superficial are treated by the individuals themselves, by fellow employees, or ignored entirely. Often such treatment does more harm than good, and when the surgeon sees it for the first time much havoc has been wrought.

For example, a man going upstairs fell and injured his leg over the middle of the crest of the tibia. The laceration appeared to the foreman to be only superficial, so he swabbed

it with an alcoholic mercurial preparation. Four days later, when we first saw the man, he was having chills, fever, the leg was very much swollen and was hot and he was profoundly ill. He was sent to the hospital where for two weeks it was a battle for his life, and another two weeks passed before we could feel reasonably sure of saving the leg. He ran the gamut of a bone infection with the associated soft tissue involvement over a period of months. The heavy expense amounting to several hundred dollars, his suffering and loss of time could so easily have been prevented by thorough and appropriate treatment at the time of the injury.

The employers and the insurance carriers must be taught to not resent a flock of small bills for proper attention to these apparently minor injuries, because they eminently justify "a stitch in time may save nine." The saving of the expense of one case, such as that just mentioned, would defray the expenses for first aid to dozens.

The other side of the picture is illustrated by that of a man who sustained a laceration over the middle of the flexor surface of the forearm, apparently barely through the skin. The plant superintendent was tempted to strap the skin edges together with adhesive but decided to send him to the surgeon. Investigation revealed complete severance of the palmaris longus tendon and almost complete severance of the flexor digitorum sublimus muscle. Proper cleansing and suture of the severed muscle and tendon were accomplished and the man was back at full duty in six weeks, the wounds having healed by first intention. I need not picture to you the consequence of infection here, efforts to overcome it, delayed suture of muscle and tendon and so on.

The laity are quite afraid of the rusty nail but give very little thought to the splinter

\*Read before the Medical Association of Georgia, Atlanta, April 26, 1939.

even though it penetrates deeply and they are none too sure that they have removed all of it. Of course, tetanus is to be dreaded but they do not seem to appreciate the splinter as a carrier of this as well as other infections. Recently a palmar abscess was only narrowly averted in a case of cellulitis of the hand and arm 48 hours after a splinter had penetrated the base of a finger. The splinter was removed by a fellow employee and nothing else was done for the wound. Enlarging the splinter wound and hot hypertonic solution in a continuous bath to the wound, followed by hot moist compresses, brought about a recession of the infection.

One could continue endlessly to cite case reports but the above should suffice to illustrate the point I wish to make, namely, any broken skin whether puncture, laceration or maceration should be referred promptly to the surgeon for handling and we should get this driven thoroughly home to the plants or industries for whom we work, and to the insurance carriers. In so many instances one or two office visits at the time of injury could avoid serious complications and large bills, saying nothing for the suffering and loss of time of the injured.

Those industries by whom you are employed should be instructed to remove from their first aid kits all corrosive or irritant chemicals that none may be applied to the injured. Instead teach them to apply only a clean bandage until the surgeon can arrive or until the injured can be transported to him. How blessed the injured would be if only this thought could be got across!

Now let's come a little nearer home and find fault with ourselves. How many of us really appreciate one of the most outstanding surgical lessons of the late World War—the principles of or the basic facts behind the "Carrel-Dakin Treatment"? War injuries and industrial accidents are quite similar; they may be "minor" or "major" but in either instance occur always in more or less, generally more, dirt and filth since the working man is not on dress parade, therefore they are all contaminated wounds. What part did Dr. Carrel, the surgeon, play and what did he ask of Dr. Dakin, the chemist?

Dr. Carrell, appreciating the work of others as well as his own, applied the principles of thorough mechanical and surgical cleansing. He took advantage of the "period of contamination" in which organisms were plentiful in a wound but had not become implanted; they were lying upon or near the surface of the tissues and therefore could be washed out by thorough mechanical cleansing with soap and water abundantly used. Second, he realized that devitalized, macerated tissue would afford an excellent culture medium for such organisms as may have escaped the washing process, therefore he excised such tissue—"surgical cleansing." For the many injured in whom the above could not be carried out to complete satisfaction and those who had been lying out on the battle field for several hours, when the "period of contamination" had passed to that of infection, he wanted a chemical strongly bactericidal but *non-irritating* and *non-corrosive* and this is what he asked of Dr. Dakin, who developed the solution bearing his name and several kindred and more stable chemical compounds likewise strongly germicidal.

A real appreciation of these underlying principles is so necessary in the proper handling of the injured. Why go to the trouble of mechanical and surgical cleansing and then swab out the wound with tincture of iodine or other irritant, thus producing a coagulative necrosis and defeating all that has previously been done, indeed creating a most excellent culture medium for organisms? What justification for that which we often see, no mechanical or surgical cleansing but iodine or some such preparation poured or mopped into the wound, only adding insult to injury? Corrosive chemicals have no place in the armamentarium of the industrial plant or of the industrial surgeon in so far as their use in the injured whose skins are broken is concerned. Even should all organisms be removed by mechanical cleansing, the coagulative necrosis produced by a corrosive chemical only delays wound healing just that much and predisposes to a secondary infection. This applies equally to superficial injuries, to those involving deeper structures, muscles, fascia or tendons, and to compound fractures, the lat-



ter I discussed before this Association at our last meeting in Macon.

May I repeat only to emphasize that the mechanical and surgical cleansing must be thoroughly done—wash, wash, wash with soap and water until the parts are clean without and within. Then chemical cleansing with a non-irritating or non-corrosive solution followed by surgical cleansing or debridement of devitalized tissues, and again chemical cleansing. If these have been adequately done the wound may be closed completely and expected to heal by first intention. In cases where the above cannot be carried out to one's entire satisfaction, the wound must be left more or less open and chemical cleansing continued further either by tubes placed into the depth of the wound or by compresses or both, but let the chemical be of the above type.

Summarizing, I would urge the industrial surgeons to keep these points in mind:

1. To gain the cooperation of his plant or industry so that all injuries in which the skin is broken be referred promptly to him for proper handling. A maximum of not more than eight hours should elapse before surgical treatment is given and in severe injuries, the time should be less.

2. To remove from their first aid kit all irritant or corrosive chemicals. Instruct plant operators and workers in the use of a simple, clean dry dressing or, when a moist dressing is needed, substitute a bland non-irritant such as some of the chlorine preparations, boric acid solution or hypertonic magnesium sulphate or sugar solution. Thus the patient will come to you with no harm having been done and nothing to interfere with such further treatment as you may direct.

3. Remove from your own supply kit such things as violate the principles previously discussed, and your own life will be happier in the better results obtained.

4. Many lacerations, superficial or deep, even many compound fractures so treated, may be safely closed snugly and expected to heal per primam.

I cannot refrain from adding a pertinent appeal which has just appeared in the current issue of *Industrial Medicine* (Vol. 8, No. 4, April 1939, pp. 156) by a man of vast experience over a period of 25 years. Mr. Her-

bert L. Hanson, chief claim agent, New York Central System, speaking before the Association for the Advancement of Industrial Medicine, Nov. 17, 1938, in New York City, said: "All of us concerned in the care of those injured in industry are more or less haunted by that grim spectre of infection and its frightful possibilities. We ask that you and those working as your associates and subordinates on this work of educating those exposed to industrial hazards to the dangers of neglecting to secure prompt and proper attention to any injury, no matter how slight."

### THE TREATMENT OF FRACTURES IN A SMALL COMMUNITY HOSPITAL\*

CHARLES H. WATT, M.D.  
*Thomasville*

Even in this day of specialization the problem of fractured bones is largely the problem of the general surgeon and general practitioner rather than that of the orthopedic surgeon. To the latter frequently falls the task of caring for the complicated fractures or those who have received poor results at the hands of others. A fresh fracture is looked upon as an emergency by the layman who usually rushes to the nearest doctor still believing that "any doctor can set a broken bone." Unfortunately this belief also exists in the minds of many members of our profession, often to their embarrassment and the patient's misfortune.

The general principles that apply in the treatment of fractures have come down to us through the centuries unchanged, because they were founded upon a thorough knowledge of human anatomy and mechanical principles, which are unchangable. The principles of fracture treatment, therefore, have not, will not, and cannot change. It is only the methods that have changed. With all of our present day improvements and advantages, our mechanical tables, skeletal traction, and actual visualization of the bones by x-ray, can we show equally marked improvement in end results?

There are several factors that enter into and determine the end result in any fracture. First

\*Read before the Medical Association of Georgia, Atlanta, April 26, 1939.

of all is the severity of the trauma causing the injury, whether it be a simple or a compound fracture. Too often we are inclined to think only of the broken bone and fail to visualize the damage to the soft tissues. Because of such damages we frequently find that our troubles are just beginning when the splints are removed. Such trauma is not always the direct result of the original injury but may be due to careless, indifferent or unskilled handling following the injury.

In our hospital, located in a community largely agricultural, most of the fracture patients admitted have had automobile accidents, although quite a few come from mills and logging camps in northern Florida. It is of great importance, and of much significance, to note that the patients coming from these camps and mills, one as far as 120 miles, are usually in much better condition than those brought in from the highways. This is due largely to the fact that the mills have a trained personnel and surgeons who are careful to "splint them where they lie" and thus avoid further damage in transportation. The manner in which some of our patients are transported, even by trained ambulance drivers, is deplorable. One such, who claimed to have received his training in a city, when reprimanded for hauling a young man with a fracture of the femur some 25 miles over a rough road without any form of splint, replied: "Yes, I know how to put on a Thomas splint but I can get the patient to the hospital in the time it takes to put one on; and besides they usually take it off as soon as I get there." If this is the average ambulance driver's conception of the purpose of transportation splints, I see no hope of educating them except through legal compulsion.

Time does not permit me to enter into a discussion of the various types of fractures so I shall limit my remarks to some of the more common ones encountered in every day practice.

#### *Fractures of the Pelvic Bones*

In our experience one of the most common fractures seen today is the pelvic fracture. These may vary from a simple crack through one of the pubic rami to multiple

severe fractures complicated by ruptured bladder or rectum or both. The treatment, of course, depends upon the lesion. Simple fracture of the rami with little or no displacement needs nothing more than 4 or 5 weeks in bed, whereas the more severe forms may have to await attention until the injured bladder or rectum has healed, for injury to these organs demands immediate surgical intervention. Where there has been a definite deformity of the pelvis produced by a fracture through the acetabulum or the ischium, or perhaps the head of the femur forced through the floor of the acetabulum, we have found it very difficult at times, even with skeletal traction, to correct the deformity. If the patient is a woman, it is very necessary that the pelvic funnel be restored to normal, if possible. Mauck<sup>1</sup> reports successful reduction in several cases of this type by the use of turnbuckles incorporated in plaster-of-paris casts, a large one above the knees and a smaller one just above the ankles. Opening the larger turnbuckle while closing the smaller one produces a powerful prying force. If there has been a separation of the symphysis pubes the turnbuckles are applied in the reverse manner, the result being a tendency to force the bones back together. Of course, the overhead pelvic suspension hammock and the spica cast are used in suitable cases.

#### *Fracture of the Lower Leg*

Since automobile bumpers were lowered fractures of the lower leg have increased in number and severity. Compound fractures of the tibia and fibula are distressingly common as compared to former times. They are usually the result of a pedestrian being struck by a passing car. Fractures of the upper tibia and fibula, and not infrequently a fracture of the patella, result from the passenger on the front seat being thrown forcibly against the instrument panel—known as a panel fracture. Most of these fractures are comminuted and frequently enter the joint. Where there is little or no displacement of fragments, we have treated these cases by plaster-of-paris cast extending from the upper thigh to the toes with the knee in slight flexion. There is usually considerable swelling, therefore a rigid cast should be split or bivalved and the

patient kept under constant observation until all danger of swelling is passed.

A severe degree of separation of bone fragments calls for an open reduction. The proper plane of the joint surface must be maintained, or restored, if possible. Early motion without early weight-bearing, we believe to be important in these cases.

Treatment of fractures of the shaft of the tibia and fibula offers a serious problem at times. If compound, it is our custom to thoroughly cleanse the wound with a saline or boric acid solution, remove all devitalized tissue and, if necessary, apply a bone plate to hold the fragments together. The wound is closed without drainage and a plaster-of-paris cast applied with a window left for observation of the wound. In several cases we have been pleased with the results obtained by the use of our distractor.<sup>2</sup> Steinmann pins are drilled through the upper and lower tibia and incorporated in plaster-of-paris. The distractor is applied to maintain length and security. The wound is thus left exposed to view for observation and dressing. When the wound has healed the gap between the plaster can be filled in and the distractor removed.

We have often been astonished to see doctors treating fractures of the shaft of the tibia and fibula with plaster-of-paris casts which include the foot but not the knee. Others include the knee but fail to appreciate the importance of putting this up in definite flexion in order to maintain length and to prevent rotation on the long axis. These fractures are often difficult to reduce and more difficult to hold. To rely upon a flexed knee and the dorsum of the foot to maintain proper length may result in pressure sores on the heel or dorsum of the foot. It is preferable in most instances, certainly in the presence of powerful muscles, to put a rigid Steinmann pin through the lower end of the tibia and incorporate this in plaster-of-paris. This will keep the pressure off the foot.

#### *Colles Fractures*

The self-starter for automobiles eliminated many Colles fractures but we still have a surprising number of these. I was surprised recently to hear an orthopedic surgeon say that he seldom reduced a Colles fracture under anesthesia and used only a fibre anterior



Fig. 1. Before operation.

pistol-grip splint to maintain the fragments in position. It has always been our practice to give these patients some form of general anesthetic as we have never been successful in breaking up the impaction without relaxation. Evipal, as an intravenous anesthetic, has been most satisfactory in this type case.

The persistence of a deformity after union is frequently due, we believe, to failure to thoroughly break up the impaction or failure to maintain the fragments in proper position after reduction. One may overlook the fact that even with the hand in palmar flexion, pronation, and ulnar deviation, it is necessary to immobilize the elbow in flexion to prevent the rotation of the forearm and a possible change in the position of the fragments. Strict observance of these details we believe to be essential if one expects to obtain reasonably uniform good results in the treatment of Colles fractures.

#### *Fractures of the Humerus*

Because of the fact that fractures of the



humerus and fractures of both bones of the forearm are not as common in our clinic as are the other fractures discussed in this paper, we prefer to discuss their treatment very briefly.

Fracture of the shaft of the humerus was one of the most difficult fractures to handle prior to the popular introduction of skeletal traction. This was due to unsatisfactory skin traction and the frequent pressure sores encountered as the result of traction on the forearm or pressure here from the cast. Now with a Steinmann pin in the ulna, the distractor<sup>2</sup> incorporated in a plaster-of-paris spica cast, we are able to obtain satisfactory reductions in the majority of our patients. The pressure is on the pin then, and not the soft tissues of the forearm. If we are unable to obtain satisfactory reductions because of intervening muscles, we do not hesitate to do an open reduction.

#### *Fracture of Both Bones of the Forearm*

We are subjecting more of these patients to open reductions than formerly, because it is so important to get these bones in good anatomic position to preserve the function of rotation. This is especially important for the laboring man. If the bones are fractured at about the same level, this is more necessary than if the fractures are at different levels. Sometimes perfect anatomic reduction can be obtained and maintained without open reduction; if so, fine, but if not we do not hesitate to operate.

#### *Fractures of the Femur*

Fractures of the femur, from the neck to the condyles, no doubt have caused more concern, more comments, and occasioned more arguments than any other fractured bone. Undoubtedly, it is the most difficult fracture for the average surgeon to handle satisfactorily. This is sometimes due to his lack of proper physical equipment, but just as often it is due to lack of a thorough understanding of the various types of fracture to which this bone is subject and a knowledge of the accepted method of treatment of each variety. We find recorded in the literature many statistical reports of end results in "fractures of the hip." One writer has included in his report both intracapsular and extracapsular fractures, while another has

considered only the intracapsular fractures. Naturally the writer incorporating both types in his report is able to show a larger percentage of bony unions than those eliminating the extracapsular because the latter type rarely fails of bony union whether it be treated by cast, weight traction, or well-leg counter traction, whereas, it is now universally conceded that the best results in the intracapsular fractures are obtained by some form of internal fixation or "nailing." Therefore, it is most essential that one recognize these different types of fracture in the upper femur, not merely for the purpose of more accurate statistics, but for better end results. If the fracture is intracapsular and the surgeon is not prepared, for one reason or another, to treat this patient by one of the methods of internal fixation, then he is lacking in his duty if he does not make every effort to secure such treatment for his patient. These are not emergency cases and such treatment is today in ready access to every person in Georgia who may be so unfortunate as to suffer a fracture of this type.

For lack of time, instead of discussing ways and means of obtaining and maintaining reduction of fractures of the femoral shaft and condyles, I should like to call attention to a few points that are sometimes overlooked in the treatment of these patients. For instance, the necessity for maintaining counter traction throughout the period of bone healing is not always appreciated. I have yet to find the textbook on fractures that emphasizes this point. Some show double spica casts that include the foot of the injured leg, but the foot of the well leg is free. Slight flexion at hips and knees may be helpful but does not completely prevent the patient from slipping down in the cast as when both feet are encased. Failure to encase the entire well leg and foot has often been the cause of overriding, buckling or even the fracture of a bone plate. Mrs. I. R. was operated upon for a fracture of the upper end of the shaft of the left femur because of intervening muscle (Fig. 1). A Sherman type bone plate was applied and a radiograph following operation showed the fragments held in excellent position. A double spica plaster-of-paris cast was applied extending from the rib margins



Fig. 2. One week after open reduction and application of Sherman plate.



Fig. 3. Eight weeks after open reduction showing good union but one and one-half inches of shortening and fracture of the bone plate as result of removing cast from foot of well leg.

to the toes of both feet. A week later a radiograph showed no change in the position of the fragments and plate (Fig. 2). She was sent home in an ambulance and at the end of eight weeks returned for removal of the cast, at which time we noticed there was no cast around the good foot. This had been removed one week after she went home, upon the recommendation of her family doctor. Removal of the cast showed firm bony union of the fracture with  $1\frac{1}{2}$  inch shortening. Radiograph showed union with shortening and a broken metal bone plate (Fig. 3). With no "bottom" on the well leg there was nothing to prevent the patient from slipping down within the cast after shrinkage of the tissues had taken place.

One objection, often heard, to treating fractures of the femur by the cast method is the prolonged immobilization of joints other than the ones directly above and below the

fracture. In other words, all joints of the lower extremities except the toes. The assumption is that the joints will suffer the same degree of stiffness as that in the knee of the injured leg, which, of course, is not the case. Although the knee of the well leg be confined in the cast as long as the knee of the injured side it will recover its normal range of motion very quickly, frequently within a few days. The same is true of the ankle joints. The knee of the injured leg is slow to regain its normal range of motion, not because of trouble within the joint due to complete immobilization, but because of adhesions and fibrosis within the muscle bundles and soft tissues of the thigh as a result of the extravasation of blood and lymph at the time of injury. Could one hold the fragments in position and at the same time prevent adhesions and fibrosis in these muscles by active or passive motion, there

would be no prolonged or even temporary stiffness of the knee. Weight traction more nearly approaches this ideal than does the cast treatment, but in our experience the other advantages of cast treatment outweigh those of weight traction. The angle iron method used by Hawley and his co-workers is worthy of consideration for the reason that no rehabilitation period is necessary. The objection to this method, of course, is that it necessitates an open reduction.

Time does not permit a discussion of post-operative care. Suffice it to say that intelligent physiotherapy as a postoperative measure is of great aid in restoring the weakened muscles and stiffened joints to early and normal use.

In closing let us urge upon everyone treating fractures the importance of the x-ray as an ally. We always check the position of the bone fragments in the final position of healing; and knowing that these may change, even in a plaster-of-paris cast, an occasional check during the period of immobilization is made. And finally, we depend upon the x-ray to tell us when union is firm, or "bony," and act accordingly, remembering that it is better to support a fracture too long than not long enough.

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JOSEPH MILLETT, Hempstead, N. Y. (*Journal A. M. A.*, Dec. 25, 1937), reports a case of type III pneumococcus meningitis and septicemia in the treatment of which prontosil soluble was given intramuscularly and intrathecally. The patient died of an overwhelming infection of the type III pneumococcus. There is some experimental and clinical evidence which, although meager, points to the fact that sulfanilamide has some therapeutic action against the type III pneumococcus. The initial spinal tap in this case contained an abundance of type III pneumococci, the pus was fairly thick and greenish and the cell count was high, yet a culture taken after the administration of 60 cc. of prontosil soluble intrathecally revealed only a scant growth of the organism. The necropsy revealed that prontosil soluble administered intrathecally diffuses generally throughout the central nervous system with apparent ease and a minimum of irritation. It does not affect subsequent drainage and mixes intimately with the spinal fluid. Because of its proved diffusibility throughout the central nervous system, prontosil soluble is recommended for intrathecal medication, augmented by the oral use of sulfanilamide, in those meningeal infections which have been shown to respond to these compounds.

## SOME ETHICAL AND LEGAL ASPECTS OF INDUSTRIAL PRACTICE\*

J. W. SIMMONS, M.D.

Brunswick

A myriad fears with subtle speech  
May tempt our souls to treason;  
A thousand evil fingers reach  
To snarl our threads of reason.

—J.W.S.

This is an intransigent and intrusive civilization in which we are now living. Most of our business and professional lives, some of our domestic and social lives, are about as private as a Broadway electric sign. The movies have invaded even the delivery room; and who are we to predict that they will not invade the connubial chamber? There are so many divergent strabismic situations that we have run out of similes and metaphors, to say nothing of expletives, to the extent that *The Readers' Digest* is offering prizes for new or unique modes of expression. There are many things in the home of the free-hand and land of the brave taxpayer that we must and will do, whether we wish or not.

It is a far cry from ancient contract practice in isolated resource developments to the present complicated and legally supervised compensation practice, with ideal set-ups of social and industrial hygiene in group, community and industrial services. Formerly the employers paid the salaries of those who furnished medical and surgical services through deductions from the pay roll according to marital status and dependents. It was community medicine—group practice—without legally fixed compensation for temporary, partial or total disabilities. The civil courts were the only recourse of the disabled workers who were thrown out upon the world like so much flotsam and jetsam. Employers were often able to continue damage suit cases until the plaintiff died of old age or quit the quest.

We would like to believe that originally contract industrial practice was a humanitarian idea conceived by kind-hearted employers. Some might have been so moved to adopt it. But we are inclined to think that it was a manifestation of the primordial in-

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instinct of self-preservation on the part of both employees and their immediate overlords. Isolation from necessary service in case of emergency threatening life or limb urged provision of some sort of medical service. Whatever the urge, it was a far step in social and industrial progress.

There has been never a doubt of the wisdom of such security as is now furnished the American workman. He, after all is said, is the chief asset of any progressive civilization. He is today the world's most important patient. The whole population pays for his medical care and his disablement.

Compensation and industrial practice is still rather chaotic, with many of its ethical phases, as well as legal responsibilities vaguely defined. Practically no two of the compensation law codes of the forty-six states and two territories now having them are identical in their coverages, provisions for services, and administrative policies. Compensation insurance was a virtual forerunner of the New Deal's social security ideas. In all its possible uses it is sick and accident insurance, life insurance, old age and unemployment insurance; and, in many instances, group medicine and group hospitalization insurance.<sup>1</sup> Some of these uses are abuses or misinterpretations of coverage encouraged by many unjust verdicts of courts and industrial boards.

Compensation industrial practice today is throwing its more or less protecting arms about some 25,000,000 American workers. The scope of its protection is on the increase, we may be assured. Inasmuch as medical service is of the most importance in such efforts at social and economic security—Madam Secretary Perkins, as former New York Labor Commissioner, to the contrary notwithstanding<sup>2</sup>—it behooves organized medicine to take more interest in, and insist on more participation in, the perfection of all the legal provisions of, and administrative policies connected with, all such legislation. It seems strange that in most states that have framed such legislation, the advice of the most important member of the set-up—the doctor—has never been sought or considered.<sup>3</sup>

Even in its incomplete coverage, with many urgent demands unmet, the American public is paying something like \$700,000,000 in

workmen's compensation costs. Of this cost only \$100,000,000, or an average of \$4.00 per annum per individual covered, is paid for medical and hospital services. The balance is expended for administration, adjusting, lawyers' fees, disability and compensation for deaths and lost time. As near as national statistics can be correct, the number covered by such insurance is exceeded only in Germany, where, through socialized or state medicine, in which dependents are covered, 45,000,000 have the benefits of sickness and accident insurance at an approximate cost of \$300,000,000—the varying value of the reichmark considered. The British system of insurance now covers about 18,000,000 persons at a cost of about \$190,000,000. Again America leads in costs, if not in coverages, in proportion to population.<sup>4</sup>

If these observations are not enough to convince us we are dealing with a very important phase of American medicine and, that as industrial physicians, we have important patients under our charge, let us briefly consider what happens when a private patient has an accident or falls ill of some disease that might be classed as occupational if he were in industry. Immediately there is the choice of the physician. Here, as in industrial practice as some would amend the law, freedom of choice does not always mean that the most competent is chosen. A few friends inquire, some send flowers. Our relations are entirely personal and private. No one supervises, criticizes, or need know anything about, our treatment. The end result—frequently in the lap of the gods—and its consequences are to be discussed, canvassed and considered by us and our patients alone.

On the other hand, what happens when a lowly laborer is injured and brought to us, or chooses us? Immediately we are concerned with a ward of the employer, the insurance carrier, the industrial board of the state, the federal labor department, and the courts of the land. Each or all may be concerned in our history of the case, with all circumstances of the patient's prior health, previous disabilities, extent of his injuries, our methods of treatment, his defects, scars, his permanent or temporary disabilities, the probable length of his lay-off, his disfigurement, possibilities

of his rehabilitation, etc., ad infinitum. In addition to rendering medical and surgical services, we are thrust into a new and extremely vague field of professional endeavor. We must assume judicial and juridical powers; become arbiters of economic justice and expert witnesses in a new pathologic process—the disease of “inability to work”—which has few laboratory findings.

We are further charged with the obligation of becoming mathematicians in a new and rather intricate system of mensuration. This is the intriguing task of evaluating more or less accurately on a percentage basis just how much loss of ability or earning power our patient has, or may sustain. We must not take into consideration his own personal manner of such past or future performance, however efficient or inefficient that may be. His members are already divided for us into groups of bones and joints. These are further subdivided; each division and subdivision being assigned an arbitrary value, differing in various states; with an Hawaiian leg being worth more than a Georgia leg. Evaluations are mostly without consideration of the artisanship, or technical and expert plane of the worker, being based wholly, in final compensation, on the average weekly wages of the worker at the time of his injury.

In most states little consideration is given the possibility of rehabilitation, retraining, and the possible effective replacing of him in as good or better job with probably better earning capacity, despite his loss. The law and society appear to have done their duty when they have legally remunerated a victim of an industrial accident for a supposed loss of earning capacity on an arbitrary basis of dollars and cents per evaluation of such loss. They do not seem to consider that he must live on, and that eventually someone must support him.

Let it be understood that any remarks of mine which might appear critical of the general administration of workmen's compensation laws, or the public's attitude toward them are directed only at imperfections, and unjust abuses of such laws on the part of all parties concerned; they are not intended to discredit the wonderfully just uses and blessed security the laws more often bring.

“Organized medicine, as represented in such national societies as the American College of Surgeons and the American Medical Association, has looked askance at the methods employed in the administration of workmen's compensation laws. This attitude has resulted from two outstanding facts, to wit: (a) that compensation legislation supported by a compromise opinion of labor and industry has not consulted, nor enjoyed the advisory opinions of organized medicine in the writing of the fundamental features of the law; and (b) that its administration, involving as it does adjudication of so many questions inherently medical in nature, has not utilized, except in scattered instances, the services of qualified physicians in the capacity of medical advisers to the administrative boards.”<sup>5</sup>

Thus we have the anomalous situation of those concerned with the most important phase in the proper operation of the laws and with the heaviest responsibility for the success of its humane, sociologic and economic program reduced to the status of simple servants in its principal function; though upon them as witnesses of both facts and opinion must depend the justice of all its ultimate benefits. The solution would appear to be composite boards, free from political influences, and representative of all interests concerned in just, competent and adequate administration. There should be well defined and unconfused functions in the various fields and phases in which special qualifications and competence are required.

In many places today the same criticisms are brought against industrial practice as were justly leveled at some of the more vicious forms of contract and group practice developing from unethical, dangerous, complicated, commercial systems originated in the middle and latter parts of the last century by selfish employers, unscrupulous lay organizations, fraternal orders, and the like.<sup>6</sup>

Ethical industrial practitioners should command and enjoy the respect of their own fellows in other lines of general and specialized medicine, as well as gain recognition for certain qualifications and competency by those who must directly pay for their services, and by the public who must ultimately bear the burden of costs of any form of security. Some criticisms leveled at a rapidly growing system of specialized service in this particular field are these:

1. It removes a large group from competitive practice, not only strictly industrial practice, but by the advantage such service gives in increasing private prac-

tice it works to the disadvantage of the family physician.

2. It, in many instances, denies freedom of choice of physicians to the injured worker; and/or ill worker, if medical coverage is included.

3. There may be misinterpretation of the function of the plant physician, as manifested by the exhibition of bias or prejudice in favor of the employer or his insurance carrier, and against the interests of the workman.<sup>7</sup>

4. If he is engaged to do pre-employment examinations, working injustices against applicants for employment by excluding all showing signs of potential disabilities or organic diseases and infections liable to be aggravated by, or render him disabled in the course of his proposed employment.

5. Securing discharge of employees whose medical record is lengthy, or whose accident record shows him to be a potential hazard to himself, his fellow employee or mechanical equipment.

6. Cutting fees, or having secret agreements with employers and insurance carriers.

7. Demanding splits, or splitting fees with consultants and assistants; and rebating or bribing those officials who have charge of such service.

The answers to all these criticisms are obvious to the ethical industrial practitioner. Honesty needs no specifications; it intuitively meets every tempting contingency; inherently fulfills every requirement. No ethical practitioner would dare discuss professionally a medical complaint by his industrial surgical patient, unless it was directly related to causation of, or recovery from, his injury, if he knew he was not the family physician of his temporary patient. He would not deny to such patient the right to choose another physician if his patient expressed such desire. He would not by thought, word or gesture deprecate the services of any family physician, should any opportunity to do so present itself.

Corporate practice of medicine by lay bodies has been declared illegal by the supreme courts of many states; and in that type of practice, whether or not connected with industry, denial of freedom of choice of the physician is the outstanding vice. The profession must realize that a type of group service in industry is inevitable. However, much of the persecution and prosecution now visited upon us is fomented by those who should know that the profession, while insisting upon some freedom, is much more insistent that service to the injured or ill workman be competent, skilled and adequate. Often ignorance must be protected from ill

results due to its lack of wisdom and judgment.

"Occasionally injured fall into the hands of the unscrupulous or incompetent, whose prolonged or inadequate treatment and excessive fees increase all costs."<sup>8</sup> A study was recently made by an insurance company of the costs and disabilities resulting from injuries, based upon the fact that the surgeon who was reimbursed on a fee basis was or was not selected by the insurance carrier.<sup>8</sup> Those classified as "unselected" were cases in which the surgeon was chosen by the employee or employer. An analysis of 4,880 cases of all types taken in chronologic order revealed that the patients treated by unselected surgeons had a 64 per cent higher average compensation cost, and 39 per cent greater disability than those treated by selected surgeons. Such findings by insurance carriers constitute the basis for their contention that traumatic surgery is a specialty in which all doctors are not equally competent. Regarding the third criticism, there is no valid reason why industrial practitioners should not possess as much of the confidence of their industrial as of their private patients. Justice answers to justice, and right to right, as eyes to eyes, when honest hearts are behind them. Courts and industrial boards are cluttered with settlement of the differences of the other kinds of characters on both sides of any controversy.

As long as industrial boards and courts penalize the public and employers by holding unjustly that aggravation of pre-existing diseases and defects, or deaths therefrom in the course of employment are compensable, examiners are bound to withhold such cases from employment in certain types of labor. This must be done both from the standpoint of economics, as well as for the protection of the applicant himself. The stresses and strains of earning a livelihood, the degenerative diseases of advancing age, all take their toll alike from banker and laborer in decrepitude and death.

There is diversity of legal opinion on privileged information between doctor and patient, or examiner and examinee in Georgia; but presumption of legality of conveyance of full and free information to an employer or insurance carrier is certainly assured in the examination blanks and Forms S. F. 2 or



18, to the completion and filing of which the examinee or injured tacitly agrees and consents. If he has a recourse at all the state should provide it without embarrassment to the physicians. Certainly the physician should suffer no personal, or the profession no mass, criticism for performing their full duty to society, both from the economic and humane standpoints.

These cardinal points in industrial compensation work are essential: The interests, physical and financial, of the employee; seeing that he has competent and adequate surgical and hospital care; and that those who render that service be adequately remunerated. On these principles there should be no compromise.<sup>6</sup> Humanity and the best civilization demand this much; we cannot afford to render less.

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- (Essayist's Note: In the preparation of a paper on a topic of such general interest and with such extensive literature, it is possible that many expressions of opinions and convictions may coincide with somewhat similar expressions already in print to which it would manifestly be impossible to give credit for a parallel idea or expression. If plagiarism is found, and it is possible there may be, kindly accept my apologies. It is not my fault that we think and speak alike.)

J. P. PRATT and W. L. THOMAS, Detroit (*Journal A. M. A.*, Dec. 4, 1937), observed 200 consecutive menopausal cases over a period of several months. Only 100 of the subjects returned often enough to justify tabulation. The 100 cases is a small number from which to draw conclusions but it is sufficient, however, to establish a trend. The symptoms attributed to the menopause are so diverse that it seems unreasonable to consider that all of them are due to ovarian failure alone. The average age of women in the series at the time of observation was 45.6 years. The average age at the onset of the symptoms was 43.5 years. Eleven of the patients had an artificial menopause. The average time that elapsed between the operation and the onset of the first symptoms of the artificial menopause was ten weeks. In general, the symptoms of the artificial menopause were more severe than were those of the natural menopause. The materials used for the relief of the menopausal symptoms were capsules containing theelol, phenobarbital or lactose, compressed tablets containing emmenin or lactose (but identical in appearance) and ampules of oil alone or theelin in oil. From 64.2 to 85.7 per cent of the patients who received drugs or placebos but who did not know which reported complete or partial relief, all the twenty-two patients who knew they were being given phenobarbital were either partially or completely relieved.

## THE OPERATIVE TREATMENT OF INGUINAL HERNIA\*

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Inguinal hernia is today the chief problem of the industrial surgeon. On him frequently is placed the difficult task of interpreting the relationship between injury and hernia, and on him lies the responsibility of the final decision regarding treatment.

The controversy regarding the influence of trauma on hernia goes on without much progress toward solution; in fact, the trend appears to be in the opposite direction. We find a more liberal attitude on the part of those delegated to interpret the compensation laws with the result that they consider all hernias as being of traumatic origin, while those who have approached the subject from an anatomic and developmental basis are inclined to accept the scientific view that all hernias are congenital in origin.

At the Henry Ford Hospital, we have now reviewed the records of two thousand hernia operations. The impressions gained from this study form the basis of this presentation.

#### Diagnosis

The diagnosis of inguinal hernia is usually easy, but doubt will arise in some instances. There are certain precautions that should be taken when conducting an examination for hernia. These may appear to be elementary, but neglect of them will often lead to embarrassing situations.

The patient should be stripped to the waist—mere loosening of the clothing is not enough. An opinion regarding the hernia should not be given unless the patient has been examined in both the recumbent and erect positions. Both inguinal regions should be inspected, and yet too often only one side is examined. Be certain to examine and record the condition of both testes and make a record of atrophy lest a claim of unskillful surgery be entered at a later date when the condition actually existed at the time of operation. An

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†Invited guest.

effort should be made to distinguish between direct and indirect hernias. This is not difficult if the observer keeps in mind that the sac of a direct hernia has no connection with the spermatic cord and thus does not tend to enter the scrotum. Another point in differentiation is noted by examining the floor of Hesselbach's triangle with the forefinger, invaginating the scrotum through the external inguinal ring. In direct hernia, the stretching or tearing of the posterior wall of the inguinal canal permits the finger to enter the pelvis and palpate the edge of the rectus muscle medially and the smooth superior surface of the superior rami of the pubic line inferiorly, while in indirect hernia, the intact posterior wall resists the advancing finger.

Femoral hernia in the male is easily diagnosed by noting that the sac does not come out through the external inguinal ring, but in obese females, the external ring may be difficult to identify. Under these circumstances, the surgeon's forefinger should be placed on the pubic spine, not the pubic crest, and held at right angles to the patient's body. The patient is then asked to cough or strain and, when the sac comes down, note its position in reference to the forefinger, for the sac of an inguinal hernia will appear above and medial, while the sac of a femoral hernia will appear below and externally.

The consultant should be exceedingly loath to disagree with a diagnosis of hernia on the basis of one examination. In case of doubt, it is always good practice to ask the patient to return for re-examination, since some patients are unable to relax their abdominal muscles owing to nervousness, so that when only a small sac is present, muscular tension may be sufficient to prevent its appearance. The patient's own story of a lump appearing on straining and disappearing on lying down is reliable evidence of hernia and should not be disregarded.

#### *Preparation of Patient for Operation*

A complete physical examination, with urinalysis and Wassermann blood test, should be done in order to recognize and treat diabetes, syphilis, hypertension, enlarged prostate, etc. These conditions do not preclude operation, but some of them, such as diabetes, require treatment before proceeding,

while others such as hypertension indicate the necessity of special care in handling. Few need be denied the benefits of operation if the precaution is taken to make use of local anesthesia in sub-standard cases. The patient should have at least one night's rest in the hospital and more if there is any doubt about his physical condition. Since pneumonia is the most fatal of the postoperative complications, it is important not to operate during epidemics of colds or influenza, and at least one month should elapse before operating on a patient who has recovered from an upper respiratory infection. The last minute check of the patient immediately before administering the anesthetic should include an inspection of the nose and throat to exclude early evidence of upper respiratory infection.

#### *Anesthetics for Hernia Operations*

The selection of an anesthetic agent is usually a matter of choice and of personal experience. At the Henry Ford Hospital, fully 90 per cent of our hernias are done under spinal anesthesia. Perfect relaxation of the abdominal muscles permits a more accurate approximation of tissue and certainly makes the operation easier for the surgeon. The number of fatal pulmonary complications have been reduced, but atelectasis is just as common with spinal as with general anesthesia. Spinal anesthesia is not suitable for the poor risk patient. Hypotension and hypertension are definite contraindications. A patient with a positive blood Wassermann, especially compensation cases, should not be given a spinal anesthetic, for should symptoms of central nervous system lues appear at a later date, the claim might be made that the condition was caused by the spinal anesthetic agent.

Employment of local anesthesia raises the limits of operability and makes it possible to extend the benefits of operation to sub-standard patients. Definite indications are hypertension, myocardial disease, persistent respiratory infection, old age, and strangulated hernia. In the latter condition, resection of the damaged intestine and restoration of intestinal continuity can be accomplished easily after injection of local anesthesia into the mesentery of the affected bowel.

### *Suture Materials*

The best evidence that this question is not settled is the variety of suture materials available. If it is agreed that the purpose of sutures is to maintain apposition of approximated tissues, then non-absorbable sutures fulfill this requirement. The great drawback to the use of silk or other non-absorbable suture is persistent sinus formation in the presence of even mild infection. Silk, therefore, should be used only under ideal conditions. If there is any question in regard to the condition of the skin, the patient's ability to heal, or the maintenance of absolute asepsis, then catgut should be employed. Living sutures taken from the external oblique aponeurosis or from the fascia lata have definite value in large complete hernias when the musculature is weak or deficient, in certain of the direct hernias and in recurrent hernia.

### *Preparation of the Skin for Operation*

The skin of the inguinal region requires special care in preparation because the numerous hair follicles and moist skin of the area favor bacterial growth. The best results will be obtained if the so-called orthopedic preparation of the skin is undertaken the night before the operation. This includes shaving the skin, a hot soapy tub bath, and scrubbing the skin with benzine to remove excess fat. The region is then painted with antiseptic solution, such as iodine, the mercuric salts, or cresol solutions, and the whole area is enveloped in sterile dressings. The dressings are removed only when the patient is on the operating table, and the skin area is repainted with antiseptic solution before beginning the operation.

### *Skin Incision*

The usual hernial incision is about four inches long and runs parallel to Poupart's ligament and a finger's-breadth above this structure. In obese individuals and in those with direct hernias, the hockey-stick extension from the medial extremity of the incision parallel to the pubic crest will permit easier insertion of the difficult lower angle sutures than will the classic incision.

### *Aponeurosis of the External Oblique*

The external oblique muscle is very important in the structure of the lower abdominal wall. Keith has pointed out that in higher primates where hernia is unknown, in

spite of a well formed inguinal canal, the external oblique is inserted entirely into the pillars of the external ring and not through the medium of Poupart's ligament. Further evidence of the part it plays in the prevention of hernia is manifested by the observation that in all cases in which an indirect hernial sac is present, there is always separation of its aponeurosis in the line of the inguinal canal. In fact, in cases of doubtful diagnosis, one can proceed with the certainty of finding a hernial sac if there is separation of the fibres of the external oblique aponeurosis overlying the inguinal canal. If then the external oblique plays a part in the prevention of hernia it follows, therefore, that its utilization in the repair of hernia is indicated. The surgeon should not be over-zealous in cleaning the surface of this aponeurosis, for its blood supply is carried in the filmy fascia that overlaps it. The aponeurosis should be incised in the line of its fibres, and the separation should be carried out of the upper limit of the thinned-out fibres so that the lateral extremity of the medial leaf shall be a firm structure and the lateral leaf shall be as wide as possible. This precaution will enable the operator to provide a broader area for subsequent imbrication. The medial flap of the external oblique aponeurosis should be separated from the underlying rectus sheath, for, until the mid-line is reached, there are relatively few fibrous attachments between the two structures. The under-surface of the lateral leaf is cleared of its areolar tissue so that Poupart's ligament is exposed from the pubic spine to the internal ring.

### *Cremaster Muscle and Fascia*

The cremaster muscle is displayed when the external oblique aponeurosis is opened. It fills in the space between the lower edge of the internal oblique muscle, from which it is derived, and Poupart's ligament. Its fibres form an envelop for the structures of the spermatic cord. The muscle varies in size and strength proportional to the size of the hernia. It is particularly well developed in direct hernia, because here the space between the internal oblique and Poupart's ligament is greater. This structure should be opened close to its origin from the internal oblique muscle in order to prevent injury to the ilio-inguinal nerve which courses along its lat-



eral fibres and to allow for ease of suture if it is to be utilized in the repair. The structures forming the spermatic cord are now identified and shelled out of the enveloping cremaster muscle and fascia.

### *The Hernial Sac*

The relation of the hernial sac to the spermatic cord settles the question of diagnosis between indirect and direct hernias, for the former is incorporated in the structures of the cord while the latter is entirely free from it. The sac of large indirect hernias is readily seen shining through the other constituents of the cord and is easily picked up and opened after incising the internal spermatic fascia. In the event the sac of small indirect hernias is difficult to locate, the following maneuver is advised: Grasp the upper limit of the cord firmly between the thumb and forefinger of the left hand and pull the structure upwards and outwards while the assistant exposes the region of the internal ring by retracting the lower edge of the internal oblique and transversalis muscles. In this manner, the peritoneum is easily identified at the point where it becomes continuous with the sac. This principle is also employed in dealing with direct hernia, for it is much simpler and easier to open the peritoneum at the internal ring than to attempt to find the peritoneum after cutting through the fatty envelope at the summit of a direct hernia with the attendant danger of bladder injury. After entering the peritoneal cavity at the internal ring, the sac of a direct hernia is converted into an indirect hernia by pulling up the peritoneum from underneath the deep epigastric vessels until the neck of the sac lies lateral to these vessels. Closure of the sac is then effected by a purse string suture just as for an indirect hernia. In large complete hernia, it is not necessary to dissect the distal portion of the sac away from the cord. Simply cut the sac away at its neck and leave the distal portion in situ. In small and moderate sized hernias, the cord is separated by sharp dissection until the sac is free. The neck of the sac is then cleared of preperitoneal fat until all the peritoneal slack is taken up so that high closure may be accomplished by transfixion or purse string suture. This high ligation of the sac

is an important step in the prevention of recurrence.

### *The Transversalis Fascia*

This is the most important structure in the architecture of the abdominal wall. It is, as Moschowitz has pointed out, the only layer of the abdominal wall through which all hernias pass. At the point midway between the umbilicus and the pubic crest where the posterior rectus sheath is deficient, the transversalis fascia takes over its function of supporting the rectus muscle. In addition, it provides the only support for the posterior wall of the inguinal canal except at its medial extremity where additional strength is derived from the conjoined tendon and the reflexed inguinal ligament both of which are variable factors. In direct hernia where the rectus muscle is usually narrow and the insertion of the internal oblique and transversalis muscles is frequently at a higher level than normal, the transversalis fascia provides the sole support for the floor of Hesselbach's triangle. The full force of intra-abdominal pressure is directed against this weak spot with the result that the fibres stretch or separate and allow the protrusion of peritoneum which, in this area, constitutes a direct hernia. It must be remembered then that repair of the transversalis fascia is the essential step in the cure of direct hernia. In small direct hernias and when the fibres are only stretched, adequate reinforcement is affected by sutures which infold and take up the slack, but when the fibres are separated widely, it is necessary to identify this fascia under the rectus muscle and suture its inferior margin to Poupart's ligament for the full length of the canal. The transversalis fascia varies in its density, but fortunately it is usually strongest when the defect is large. Frequently, it is of surprising strength especially to those who are not familiar in its utilization. The internal ring which normally lies about one-half inch above the mid-point of Poupart's ligament is a defect in the transversalis fascia. This opening transmits the spermatic cord and the hernial sac. The larger the hernia, the greater will be the size of the internal ring. At operation, the ring should be narrowed by interrupted sutures until just enough room is left for passage of the cord. Failure to observe

the precaution is the cause of many operative failures.

#### *Transplantation of the Cord*

The Ferguson operation in which repair is effected without transplantation of the cord is suitable only for small hernias in children and young adults. It is not in any sense a plastic repair, since it does not reinforce the weak area at the medial extremity of the cord. This operation when practiced on older individuals is followed by the appearance of a direct hernia in a large enough percentage of cases in our experience. The appearance of a direct hernia after the repair of an indirect hernia, while not a true recurrence, is still an operative failure as far as the patient is concerned. When it is decided not to transplant the cord, the operation will be facilitated and much neater work will result if the cord is replaced beneath the cremaster muscle and the latter is sutured up underneath the internal oblique and transversalis muscle with mattress sutures. However, when the surgeon decides to transplant the cord, the cremaster should be entirely cut away, since its presence interferes with accurate approximation of the structures at the medial margin of the canal.

The cord should be transplanted in all patients past middle age, in the obese, in all direct hernias, in recurrent hernias, and in large indirect hernias where the posterior wall of the canal has been weakened. A good practical rule to follow is to transplant the cord when there is an evidence of weakness in the floor of Hesselbach's triangle as tested by the examining finger from within the peritoneal cavity after the sac is opened. The classical Bassini technic will suffice in most instances, but when extra support is indicated, improved results will follow imbrication of the leaves of the external oblique aponeurosis behind the cord as in the original Halsted operation. The exposed position of the cord beneath the skin and superficial fascia has not in our experience caused any difficulty. Furthermore, the theoretic drawback of superimposing the new external inguinal ring over the internal ring may be overcome by careful suture of the transversalis fascia.

#### *The Rectus Sheath*

Approximation of the conjoined tendon

and lower borders of the internal oblique and transversalis muscles to Poupart's ligament is a procedure common to all hernia operations. At operation for recurrence, it is usual to find that these tissues have not remained in apposition, because, in many instances, especially in direct hernia, the distance between Poupart's ligament and the conjoined tendon or edge of the rectus sheath is too great to allow the structures to come together without tension on the sutures. The result is that when absorbable sutures disintegrate, and non-absorbable sutures cut through, the muscles resume their normal alignment, thereby paving the way for recurrence. This problem has been recognized by Bloodgood, Downes and others, all of whom utilized the rectus muscle or its sheath to fill in the gap and allow suture without tension. This difficulty may be easily overcome by employing the principle of the relaxing incision. This consists of making a vertical incision in the anterior rectus sheath as close as possible to the mid-line and extending upwards from the pubic spine for a distance of three inches. When this is accomplished, it will be found that the edge of the rectus sheath and conjoined tendon can be brought into apposition with Poupart's ligament without any tension on the sutures. The abdominal wall is not weakened in any manner, because the external oblique aponeurosis covers the defect anteriorly and the rectus muscle and the transversalis fascia provide adequate protection posteriorly.

#### *Results of Operation*

The exact recurrent rate after operation for inguinal hernia is difficult to arrive at. In general, it may be said that the number of recurrences are greater than the published statistics would indicate. The low figures often quoted are frequently computed on the basis of a short follow-up period. It is true that many operative failures are evident within six months of operation, but it is also a fact that the longer the follow-up, the greater will be the recurrent rate. I have recently seen a patient whose hernia recurred 18 years after operation. These points are mentioned to emphasize that published recurrent rates are only estimates of the true figures which must be higher.

At the Henry Ford Hospital, we have now reviewed the records of 2,000 hernia operations of which 1,476 were for the repair of indirect hernia and 524 for direct hernia. For the purpose of computing the recurrent rate, we considered only those patients who had been observed for at least two years subsequent to operation. In this group then we found 773 indirect inguinal hernia operations with a recurrent rate of 6.6 per cent and 427 direct inguinal hernia operations with a rate of 8.4 per cent.

#### *Cases of Operative Failure*

1. Incomplete removal of the sac.
2. Overlooking the presence of a second sac.
3. Failure to make use of the transversalis fascia in repair.
4. Approximation of structures under tension.
5. Non-transplantation of the cord in indicated cases.
6. Infection.

#### *Conclusions*

1. The success of a hernia operation depends on attention to details. These are differentiation of direct and indirect hernia, high ligation of the sac, repair of the transversalis fascia, approximation of tissues without tension, and transplantation of the spermatic cord when indicated.

2. The recurrent rate increases in proportion to the length of the follow-up period.

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#### DISCUSSION OF SYMPOSIUM ON INDUSTRIAL SURGERY

*Dr. C. W. Roberts (Atlanta):* It is not my purpose to undertake a discussion of the many points of interest raised by the various contributors to this symposium but instead to use the time at my disposal in presenting certain general points bearing on the subject of industrial health.

Industrial medicine has been defined as the science of health and its preservation among workers in industry. For its successful development and application there must be increasing cooperation and understanding between physicians, employers, labor, administrators of

the law, insurance companies, public health officials and engineers dealing with questions of safety, sanitation and chemical hazards. Approached from this broader point of view it becomes obvious that while symposiums such as that to which we have just listened, dealing predominantly with surgery in industrial medicine, are always in order; we must not be content to limit our interest to a single phase of so vast and complex a problem.

According to the United States Department of Labor, annual direct and indirect losses resulting from industrial accidents and industrial diseases amounts to approximately five billions of dollars annually. This annual cost is greater two or three times over than is spent under sickness insurance in Great Britain and Germany. Thus we have, in this country, entering as it were through the back door, a form of insurance which threatens to bring, unless limited to its legitimate purpose, a widely applied compulsory sickness insurance scheme with all the evils which attend the purer forms of socialized medicine.

To bring the matter closer home let me give you certain facts concerning the cost of compensation insurance in Georgia. According to the last census there were more than one million people gainfully employed in the State of Georgia. Of this number some 400,000 were employed by some 7,000 industrial concerns engaged in a variety of manufacturing pursuits. In 1937, 37,519 accidents were reported to the compensation board. The cost to industry in Georgia resulting from accidents amounted to about one billion dollars. During the past sixteen years (1938 not included) 435,466 accidents have been reported necessitating a total expenditure of 14 million dollars.

Along with other interested agencies in this State—employers, labor leaders, insurance companies, administrators of compensation law—the Georgia Committee on Industrial Relations has an enormous amount of work to do in order that this growing medical service may be guided into and protected by the same ethical principles as characterize the older branches of medicine. This newest specialty desires and deserves to be protected by the same high standards as are accorded to its sister departments. Good medical care rendered by physicians of high professional and ethical standing is the end devoutly to be sought. Anything less will not only dishonor our profession but impose upon a growing group of our population a counterfeit system of practice, inspired by commercial motives and subject to the importunities of lay directorship. It may be said, however, to the credit of interested groups, both lay and professional, that the period which tolerated in the industrial physician a lesser measure of integrity or excused in him derelictions in either education or physical appointments for his task, has happily passed into the limbo of an unsung era. We have already arrived at a point in the evolution of industrial medicine where the poorly prepared physician, either from the standpoint of professional fitness in this new field or because of ethical casualness is no longer equal to the tasks which are developing upon him or able to command the respect of enlightened industrial employers.



The measure of service which industry will render through any proposed scheme will be determined by the medical intelligence exercised by those upon whom industry must rely for the application of industrial medical practices to the problems of industry. Industry should be protected from the burdens so frequently imposed upon it through decisions and conclusions arrived at by speculative medical and judicial thinking. In personal injury cases, unless the tendency to resolve all questions of doubt as to liability into verdicts or awards against employers is curbed, the legitimate claims of those who have suffered from the hazards of work will suffer through the unjust burdens imposed upon the backs of industry. In other words, in order to keep the interest of the worker supreme in the industrial medical picture, the employer must be protected from exploitation growing out of avarice or ignorance. To this end physicians must be trained in medico-legal industrial work—trained to apply that which is known and to refrain from the inequitable expediency of using speculative conclusions as proven facts.

In this connection I must voice my complete agreement with the conclusions of Dr. Simmons with respect to the necessity of freely using qualified medical opinions and advice in the administration of medical provisions of compensation law. The San Francisco Session of the House of Delegates of the A.M.A. approved a resolution on this point which reads as follows: "To safeguard the injured workman, the carrier and the physician, there should be medical membership on each compensation commission or industrial board. Only competent doctors of medicine can evaluate and determine the worth of medical evidence, which constitutes the crux of each decision on each claim presented to the commission or board. Your committee recommends that the constituent state medical associations be advised to take such action as may be necessary to procure medical membership on compensation commissions and industrial boards."

I cannot conclude this discussion without offering my congratulations to Dr. Holton and his Committee on Industrial Relations for having recommended the organization of the Georgia Association of Industrial Surgeons. I hope in the light of the general medical problems presented, the name of the section may be changed so as to reflect the general nature of its activities and to insure more diversified programs. The formation of the Council on Industrial Health arose out of just such considerations as these. To scrutinize and assist in the development of group programs in which the traditional patient-physician relationship can be preserved and medical ethics respected is the purpose behind the A.M.A. program and its invitation to states to form cooperating committees in the constituent and component associations.

*Dr. Frank K. Boland (Atlanta):* Discussing Dr. Rhodes' excellent paper, to insure the proper handling of apparently minor injuries industrial surgeons should instruct employees as to the correct treatment until the surgeon can see the patient. This matter is managed too casually in many places, and too much is left to chance. If a case turns out badly, and the laymen in charge have not carried out the surgeon's carefully given instructions, such laymen are to blame; but if the surgeon has failed to give definite instructions, and

the case turns out badly the surgeon is to blame.

The most serious injuries met in industrial surgery are fractures, and Dr. Watt has presented a timely paper on the subject. Fortunately the care of fractures is coming to fall more and more into the hands of men who have given the matter special attention, with correspondingly better results. We are fond of claiming how well medicine and surgery can be practiced without the aid of instruments of precision. Clinical methods are important, and must never be abandoned, but it is impossible to secure the best results in the treatment of fractures without the constant use of the roentgen-ray. Often the existence of a fracture is recognized without roentgen examinations, but a film or fluoroscopic exposure is necessary to demonstrate details and check reduction. The x-ray is expensive, and films must not be wasted, but all questionable areas should be submitted to roentgen-ray examination. It is not sufficient to reduce a fracture, apply a splint, and not see the patient again for several weeks. Continuous supervision should supervene, often with repeated x-rays. One of the most common errors is applying a splint that is too tight. We all have seen failure and tragedy follow such treatment. Colles' fracture requires attention to details. Through a swollen wrist the fracture may appear to be properly reduced, when x-ray shows the articular surface of the radius to be at right angles to the long axis of the shaft of the bone, whereas the surface should slope downward toward the outer side of the radius. This normal position of the lower fragment insures the right length of the bone and prevents radial deviation, and can be secured only by complete separation of impaction. Careful transportation of injured persons is an important matter discussed by Dr. Watt, and applies especially to fractures of the femur and spine. The Fracture Committee of the American College of Surgeons is endeavoring to instruct laymen how to handle such patients so as not to increase their injury. The Thomas splint, or one like it, should be applied to fractured thighs before moving the patient. Traction relieves pain and shock, and may prevent a simple fracture from becoming compound. Patients with injured backs should be transported with extreme care. Improper handling may produce compression of the spinal cord which did not exist before. It is not necessary to rush these cases to the hospital with the speed which often is employed. It would be safer to take time in having the surgeon see the patient "where he lies" and superintend his transportation.

Dr. Simmons presented a thought-provoking paper on the ethical and legal aspects of industrial medicine, and showed the necessity for the recent formation of the Georgia Industrial Surgeons Association. Besides discussing industrial surgical problems an important function of the organization should be the study of questions considered in his paper, a fair deal for employer and employee, and the scrupulous observation of ethical principles by the members of the medical profession concerned. To carry out the last consideration may not be a simple matter, and at the present time it should occupy a large part of the program of the Industrial Surgeons Association.

It is not customary to discuss the paper of an invited guest but I would like to make one point. I went to the Grady Hospital at the beginning of this

month. I was surprised to find the number of inguinal hernias in the male ward. Ordinarily we have about a hundred cases in the colored male ward and in the white male ward a similar number. During the past year we operated upon a total of 400 hernias and half of the number were cases coming as WPA workers and being paid extra money by the government during their stay in the hospital. In other words these cases are handled at the expense of the taxpayers and the professional work is done gratis by the doctors of the medical staff.

*Dr. George A. Traylor (Augusta):* In some sections of our country the medical profession has been content to limit its activities in industry to a purely reparative type of service. I fear this is true of ours. It is not enough for physicians to treat industrial injuries and illnesses as they arise; the hazards of various occupations must be known and recommendations made for prevention. Probably not more than ten per cent of whole-time industrial physicians' activities would be taken up with treating surgical lesions; the remaining ninety per cent would find him engaged in treating industrial illnesses, physical examinations, plant inspections, control of sanitation, preaching publicity on health matters, recommendations regarding proper food, clothing and housing, general working environment and psychology in industry. Question might be raised as to the part psychology plays in industry. Under compensation legislation some injured and ill employees have developed a mental outlook peculiarly their own, and it is necessary to take into consideration not only the injured part but the mental equipment which governs it.

According to the U. S. Department of Labor, 49,000,000 of our citizens are engaged in industry, and it would seem that the practicing profession should insist that the deans of our medical schools make provision to conduct post-graduate courses and lectures to medical societies for those men in practice, and that oncoming practitioners are instructed in the practical aspects of the broad field of industrial medicine.

The proper care of industrial illnesses and accidents is a social, educational, engineering, chemical, legal, economic and medical problem. Quite a dose for our profession to swallow, but if we want to keep step with the advances made, we will have to take it with the same grace as some of the prescriptions that we prescribe for our own patients.

*Dr. Charles E. Rushin (Atlanta):* I am interested in the statistics quoted by Dr. Simmons that in the United States \$700,000,000 is being spent on 25,000,000 laborers, which would be about \$28.00 apiece per year and only about \$100,000,000 of that goes to the physicians. The other \$600,000,000 goes to the administration and other, perhaps we might say, red tape. He also quotes that in Germany there are 45,000,000 laborers and the cost is only \$300,000,000 or a little less than \$7.00 per laborer, and in England 18,000,000 laborers at a cost of \$190,000,000 which would be about \$10.00 per worker. I wonder if in those countries they have less accidents than we do here because of the fact that they spend less money per capita than we do. Another thing that he brought out which was very interesting to me was that in the formation of compensation insurance laws, organized

medicine was not consulted at all. We find that is true of the Wagner Act which is now being brought before Congress. I fear this is just a forerunner of socialized medicine. We are doing better work or having less accidents than formerly because I noticed in the morning paper that the industrial rate in Georgia had been reduced.

Dr. Rhodes in his excellent paper mentioned the treatment of minor injuries which prevent severe complications later. I think that he is perfectly right in indicating a thorough scrubbing and cleaning of the wound and irrigation with a saline or sterile water solution is about as good treatment as could be used. At the present time the medical schools are teaching that method rather than iodine. It would be a good plan if we could teach the same thing to others not in industrial groups, teach the families to take the proper precautions at home. Many minor injuries never taken to the physician at all could be cared for and never become complicated conditions. One thing Dr. Rhodes did not mention, that is tetanus and perfringens antitoxin. That is routine practice at the Emory Unit of Grady Hospital and I think it has prevented many tetanus and gas bacillus infections.

*Dr. Charles H. Watt (Thomasville):* Dr. Boland, in his discussion, showed x-rays of a Colles' fracture with excellent reduction. It has been our experience that to maintain a reduction in these cases one should carry the support above the elbow with the arm flexed at a right angle. Unless this is done there is danger of rotation of the forearm with displacement of the fragments.

I would like to show three slides. This first slide, though poor, shows a fracture in the upper end of the femur. The lateral view shows wide separation of the fragments which required an open reduction. (Slide)

A metal plate was put on the bone and this x-ray was made at the end of a week and, as you see, shows the fragments in good position and alignment and bone plate intact. This patient was sent home soon after this film was made. At the end of eight weeks she returned. The cast had been cut away around the good foot. This x-ray (slide) was made at that time. This shows good union but  $1\frac{1}{2}$  inches of shortening as the result of the local physician's recommendation that the cast on the good foot did no good, therefore it might as well be removed. That allowed the patient to slide down with the result you see here.

#### MENACE TO HEALTH AND ECONOMIC BURDEN OF RATS

The United States Public Health Service in a news release quotes Senior Naval Architect P. W. Clark as follows: "The 'maritime world' recognizes that rat life aboard ship continues to be a menace to health and an economic burden. For these reasons it is incumbent upon naval architects and shipbuilders to provide ships of ratproof design and construction. Rats are ferocious, omnivorous, adaptable to any climate, it can live and multiply anywhere, eat anything; it climbs, crawls, leaps, swims with incredible facility; it gnaws wood, pipes, walls and foundations. Its destructiveness is virtually unlimited."



## LESIONS IN SPINAL CORD IN MENTAL DISEASE AND DEFECT RECOGNIZED BY MYELIN SHEATH STAIN\*

*A Report of 600 Unselected Cases with an Appendix on Technic*

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This study was undertaken for three reasons. The first because from the earliest association with E. E. Southard\*\* (1907) an interest was borrowed for the anatomy and pathology of the spinal cord. It is a recurring memory that at the Danvers State Hospital, Hathorne, Massachusetts, he displayed the cord collection to visitors with the greatest pride. This was done because of the collection's impressive size, and more, it was "unusual." Further, he always said by minimum effort much could be learned from a cord histologically, giving "the news from the nervous system." Few structures can be so easily viewed completely in cross section, or so continuously contain the selfsame anatomical units.

It was characteristic of Dr. Southard that he freely handed on the interest in cords to Dr. Arthur S. Hamilton<sup>1</sup> who spent the summer of 1909 at the Danvers State Hospital Laboratory, and published his "Study of the Senile

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\*The Fifth E. Bates Block Memorial Lecture before the Fulton County Medical Society, Atlanta, Feb. 23, 1939.

\*\*As you will know from the perusal of Dr. Frederick P. Gay's book "The Open Mind," Elmer Ernest Southard had in his short life of 43 years a great inspirational effect on his students and friends. When Professor of Neuropathology at Harvard Medical School and Director of the Boston Psychopathic Hospital, he had students arriving from over the entire United States. A stream of workers always followed him to the Boston Psychopathic Hospital after he had been on a speaking tour, to be near and receive the stimulation of his presence. His remarkable memory for events and the literature, his sympathy and open mind, the mental shower bath effect his lectures and demonstrations had, made for him grateful, admiring friends and firm adherents. Long after he had finished speaking the ideas he scattered grew in strength. Many a logically trained mind felt new impetus because of the contact, however brief, and very few have left the field of neuro-psychiatry who were his pupils in it. It will be long remembered that his convictions were strongest when supported by anatomico-pathological findings.

Spinal Cord in Cases of Mental Disease" from the collection. This study of Dr. Hamilton's was the second reason for reporting on spinal cords in mental disease and defect, for if he could present so much of interest in one group (senile), my problem was to determine if other groups duplicated or extended these findings.

The third reason was to point out to younger workers the value of removing cords postmortem. In these days of efficiency, speed of operation may be the prime concern of many, and other duties cause curtailment of an extra fifteen minutes' work (exceptionally 5 minutes): This thirty to forty gram weight of precious tissue may therefore be lost forever and dubious symptoms never be explained.

Anyone who has examined many Weigert myelin sheath stained spinal cord sections has had to face the moment to consider whether lesions are present or absent. The definite tract or spot lesions of demyelination are easy to decide upon, but those that are indefinite, interrupted or not previously described or explained are frequently overlooked on the basis that a "real lesion" would command attention. For many years the writer thought likewise, but on a survey of this unselected group of cords reviewed for the avowed purpose outlined in the opening paragraphs, attention became focused on scattered changes. (Cf. Table IV.)

Certain factual matters of the 600 cases are presented in the following tables:

Table IV shows the bare findings in the 600 cords; I shall elaborate somewhat on these before considering the blood supply of the cord, the blood richness in color, in cells, and vitamin A content.

Of the 59 cases showing the well recognized lesions no one would question. 16 were subacute combined system degeneration. The following case shows the necessity of examining spinal cords.

A man, (1933-34), aged 52, was a laborer in an electric wiring detail in a manufacturing firm. He received a slight injury to one lower leg in January of a given year by missing his footing on a ladder: he was treated by local antiseptic dressings but the wound became infected and he passed on from surgeon to surgeon because of a spreading infection and inability to walk. Finally, after a few days in a mental hospital where pernicious anemia was suggested, he died (in May of this same year) and a presentation of his case was made before the industrial accident board, for an award to his family for disability and death following an accident during his occupation. The infection was



TABLE I  
*Forms of Mental Diseases and Defect*

	Male	Female	Total
Dementia Praecox and allied psychoses . . . . .	70	84	154
Senile and arteriosclerotics . . . . .	37	54	91
Defectives . . . . .	42	39	81
Syphilitics . . . . .	45	15	60
Manic Depressive and allied psychoses . . . . .	15	28	43
Alcohol and drugs . . . . .	27	5	32
Undiagnosed . . . . .	17	8	25
Non-psychotic . . . . .	5	3	8
All others . . . . .	57	49	106
	315	285	600

TABLE II  
*Age at Death*

Decades	Male	Female	Total
0-10 . . . . .	6	4	10
11-20 . . . . .	10	7	17
21-30 . . . . .	23	12	35
31-40 . . . . .	52	37	89
41-50 . . . . .	67	59	126
51-60 . . . . .	58	35	113
61-70 . . . . .	60	58	118
71-80 . . . . .	32	39	71
81-90 . . . . .	7	12	19
91-100 . . . . .	0	2	2
	315	285	600

TABLE III  
*Cause of Death*

	Male	Female	Total
Acute infections . . . . .	128	111	239
Tuberculosis . . . . .	44	34	78
Cardiac and coronary lesions . . . . .	29	29	58
Nervous system (hemorrhage, etc.) . . . . .	23	14	37
Syphilis . . . . .	23	6	29
Carcinoma . . . . .	9	15	24
Gastrointestinal diseases . . . . .	10	14	24
Brain tumor . . . . .	13	4	17
Fractures . . . . .	4	6	10
All others . . . . .	32	52	84
	315	285	600

TABLE IV

Myelin sheath losses and gliosis (standard) . . . . .	59 or 9.83%
Myelin sheath losses or gliosis (peripheral) . . . . .	432 or 71.83%
Myelin sheath loss or gliosis (negative) . . . . .	109 or 18.33%
	600

it may be seen that there are places usually near the edges in the white matter, which are not so dark as others. Under the low power of the microscope these are found to be due either to holes or to a gilding. The holes are circular or elliptical and vary, but are usually the size of a mere fiber or two.

If gilding is present, there is a mass golden staining (replacement glia) with or without holes. What do these lesions mean? To the question, may not these peripheral holes be due to postmortem change, the answer is that matching hours do not give the same result, and the holes do not increase with the number of hours postmortem. In our group of 62 patients under 31 years of age, whose cords should be the most vulnerable if higher water content makes them so, holes were present in some instances 4 to 24 hours post-mortem while in others none was seen 4 to 49 hours; even one was negative for holes in a patient 28 years old who had been dead seven days!

Another objection that the holes might be due to poor or insufficient fixation, may be met by mentioning that all cords were cut immediately on the autopsy table, transversely, at centimeter intervals and placed in formalin diluted 1-10. This was changed within 24 hours, and the tissues trimmed for further sectioning in a three to seven day period after removal. With some exceptions, the majority have in these 24 years (1914-38), been done by one hand and the original Weigert stain for myelin sheaths used.

Further, since they were all treated exactly alike, postmortem, if it were anything due to manipulation they should all look the same; it is notable that 18.33 per cent of the cords showed no such lesion. (See Table IV.)

The 109 or 18.33 per cent which showed no change were reviewed for age; all decades were represented, but the majority of the patients were 31 to 60 years of age, showing that in this series age does not appear to be a factor.

Hassin<sup>2</sup> commenting under subacute combined degeneration of the spinal cord says that in such sections, frozen or embedded, stained by any method, holes are seen scattered over a dense, fibrous sclerosed field.

minimal—the cord showed the advancing lesion of combined system degeneration, which in all probability antedated the infection by some months.

Now let us consider the cords (71.83 per cent) in which the lesions were peripheral. If the cords thus stained are held to the light,

These holes are less numerous in tables than in combined degeneration of the cord, where their magnitude renders the fields so typical that in the majority of cases, a diagnosis is suggested at a glance.—Germans call it "Luckenfelder" and "status spongiosis" (Spielmeyer). The vacuoles of the cribiform areas . . . are of various sizes. They are mostly round and empty. Some harbor myelophages (gitter cells), and amyloid bodies; others are traversed by bodies (glia tissue), which in many instances are torn by distended vacuoles.

He states that status spongiosis can also be produced by lesions epidural where it is confined to the level at which the lesion, for instance an epidural tumor, is located, while in subacute degeneration of the cord the cribiform areas are scattered throughout the entire spinal cord, especially in the thoracic region.

If holes or "status spongiosis" is recognized in other areas as antedating gliosis, why not in the spino-cerebellar and spino-thalamic tracts?

As to *why* the edges of the cord, especially laterally, should have been involved in such a high percentage, (Table IV) of the cases (71-83 per cent), I fell into arm-chair reveries. I then reviewed the circulation of the cord through Tureen's<sup>3</sup> article. In this he relates of the intraspinal circulation which first and largely supplies the grey matter from the anterior spinal artery, and of the peripheral arteries which penetrate from numerous points on the surface to divide in the white matter. These vessels run between nerve bundles within the various septa . . . arteries of the subordinate septa from the remainder of the (lateral) surface of the spinal cord are larger than the smaller vessels which penetrate the anterior, the lateral and the posterior columns. *There is little regularity in their position and no constancy or plan in their formation. . . The peripheral zone of white fibers is supplied by very small peripheral arteries which arise directly from vessels in the pia mater.* In the white substance capillary networks stretch longitudinally in the direction of the nerve fibers—the capillary bed is richer in the grey than in the white (in rats)—according to the metabolic needs of the area. *The poorest part of the grey matter is nearly half again as richly vascularized as the*

*richest part of the white matter. . . . Veins are of more uniform size and . . . more evenly distributed throughout the spinal cord than are the radicular arteries.*

Suppose on this anatomical basis we attribute the peripheral lesions to lack of vascular branching in the white matter, are there other factors which could be responsible? At once another lack presented itself. Are not the mental patients actually in the hospital wards a great deal of the time? Would they have had their proper quota of blood cells or hemoglobin? Thinking on the aged first (under the influence of Southard's pupil Hamilton), I first consulted Monroe<sup>4</sup> concerning the possibility of anemias in the aged in *non-mental* hospitals: I quote his reply:

"I do not believe I can give you an adequate volume of valid statistics on the blood counts of elderly people. I have a very definite impression that elderly people have a normal, or let us say a usual, red blood count of 4,000,000 or somewhat less, with a hemoglobin of 80 to 70 per cent. I think you are on the track of a very definite contribution, and I hope to be able to dig something out to help you. It is quite possible that this slight anemia which has a basis in either depressed hematopoiesis because of arteriosclerosis, or malnutrition, is responsible for some of the limited activity of old age, some of its paresthesias and limited function of fingers and legs."

After sampling some case records corresponding to these cords in different mental hospitals, it is thought expedient to announce that no individual clinico-pathologic correlations have been made in this paper. The reader is advised that these cords have been removed over a period of 24 years not always under standard conditions. The case histories during so many years are difficult to assemble for inspection on hurried trips to the hospitals on other errands. The doctors having primarily to do with psychiatry in mental hospitals, disturbed patients and others have not always had complete neurological examinations, nor do many of the records show recent blood or spinal fluid reports. Examination of the less disturbed patients has not always yielded decisive changes to record and where negative results are more

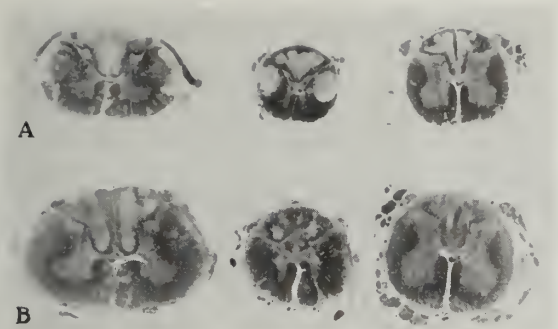


Plate I. 1933.34. (a) x 3.3. Suhacut combined system degeneration. Three levels of the cord stained by Weigert's myelin sheath method; note the extensive changes in the cervical thoracic and lumbar levels. (b) x 4.3. The same cord with a second series of the same levels, showing a diminished intensity of demyelination.

constant than positive ones, the tide of attention to these tests recedes at times. Even in hospitals where more detail is undertaken, efficiency devices to save time and effort (omitting red counts if hemoglobin is high) are apt to defeat the inquiry into really how many red blood cells a given patient had or whether the feet were crippled (to illustrate two extremes). As no work is ever completely done, we must rely on pointing out the histologic findings that have been of interest, and dangle the thought of what might have been found clinically, before the inquiring eye or the attentive ear.

Mellanby,<sup>5</sup> using rabbits eight to ten weeks old, fed them diets deficient in vitamin A and carotene. After two to three months of the diets, generally, a slight stiffness of the legs, especially hind legs, was the first symptom. Xerophthalmia appeared next in three to six months, a dull patch or band on the cornea, usually in the center, i.e. the most exposed portion; the pupils now reacted sluggishly and the up and down and lateral head movements occurred before or after the eye changes. The rabbit moved around as if it suffered from alcoholic intoxication. At no time was there definite paralysis. The severe symptoms were demonstrated to be associated with degenerative changes histologically. Light symptoms were not so convincingly demonstrated. The larger the store of vitamin A in the liver the longer it took to produce symptoms and lesions in these experiments. When produced, the *afferent* systems of the spinal cords were the first to show changes, sometimes the *efferent*.

These changes in the nervous system were *myelin and fiber loss* in the periphery of the

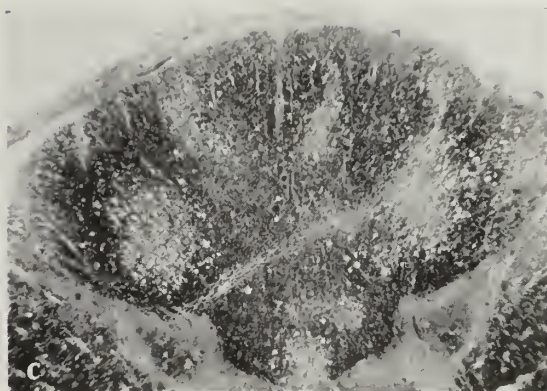


Plate II. 1933.34 (c) x 35. An enlargement of the posterior columns of the thoracic of "h" showing the diffuse groups of holes.

cord, especially in the lateral tracts (dorsal and ventral spino-cerebellar, dorsal and ventral spino-reticulo-thalamic tracts) and in the dorsal columns.

He studied the nerve cell changes in both peripheral and central systems, and mentions the protection of fibers by adding carotene or vitamin A to the basic diet.

Mellanby<sup>6</sup> also shows that he can produce changes in the myelin sheaths in the periphery of *puppies'* cords by subtracting vitamin A from a diet high in cereals (not yellow corn). He can, further, produce more extensive lesions if he feeds with ergot; reversely he can protect the myelin sheaths if he adds enough A or carotene to either diet. I quote his summary:

"(1) When diets containing a large amount of cereal (other than yellow maize) and deficient in vitamin A or carotene are eaten by young puppies, degenerative changes in the spinal cord in the form of demyelination of the nerve fibers, which can be readily observed by Marchi's method of nerve staining, can generally be observed.

"(2) The addition to the diet of two to five grams of ergot daily under these conditions hastens and intensifies these degenerative changes. 'Rye germ also hastens the changes and in some experiments wheat germ has been found to have a similar but less pronounced effect.

"(3) The presence in the diet of any rich source of vitamin A such as liver oil (mammalian or fish), whole milk, butter or egg yolk or some source of carotene such as green vegetables or carrots, or carotene itself, prevents or diminishes these degenerative changes even when ergot is eaten.

"(4) Spinal cord degeneration of this type does not seem to develop until the reserves of vitamin A in the liver are dispersed. Since these stores may be very large in well-fed animals, the time of onset of the symptoms of *spasticity*, *incoordination* and *weakness* varies greatly in different litters of animals. In the case of ergot, the changes are seen usually after two to four months on the diet.



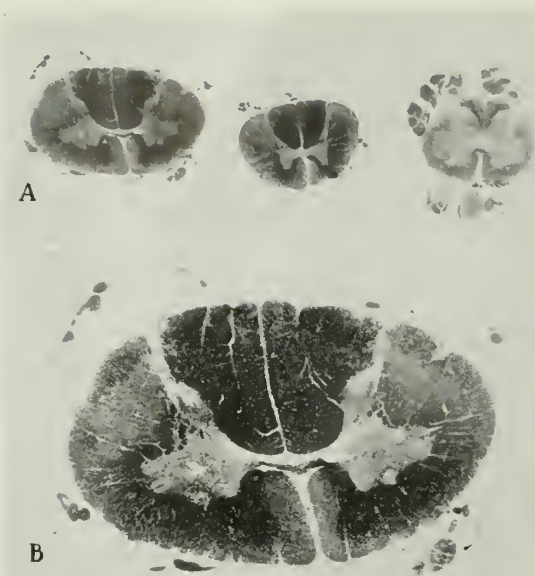


Plate III. 1938.24. (a) x 3.5. Three levels of the cord in the same stain to show small peripheral lesion indicated in the crossed and direct pyramidal tracts, particularly in the cervical and thoracic regions, with more marginal change in lumbar. (b) x 10. Enlargement showing the pallor of the affected tracts more definitely.

"(5) Not only do vitamin A and carotene prevent the degenerative changes but even in affected animals, the improvement in the clinical condition on the addition of either of these substances to the diet is very great.

"(6) The possible bearing of these results on convulsive ergotism, pellagra, lathyrism and the subacute combined degeneration in pernicious anemia, tabes dorsalis, disseminated sclerosis and even on the malarial treatment of nervous syphilis is discussed."

I also quote the summary and conclusions of Zimmerman<sup>7</sup> who examined nervous systems of rats which had been on a diet low in vitamin A.

"Under the conditions of these experiments, which consisted essentially of maintaining rats on a ration adequate in all dietary essentials as far as is known except vitamin A, the following changes were produced in the nervous system:

"1. Degeneration of the medullary sheaths of the brachial plexuses and sciatic nerves, and less often of the vagus nerves. Such lesions were not found in the optic nerves.

"2. Degeneration of the medullary sheaths of the sensory tracts on the periphery of the spinal cord and in the posterior columns. Much less frequently similar lesions were found in both the crossed and uncrossed pyramidal tracts.

"3. Changes of the same nature in the posterior nerve roots and less frequently in the anterior nerve roots of the spinal cord. Evidence was adduced to indicate that the changes in the sensory tracts of the spinal cord followed those in the posterior nerve roots.

"With the onset of muscular weakness and incoordination in these animals anatomic changes like those just described were found at necropsy, but they were

not present for any appreciable period preceding the onset of these clinical signs.

"For a short but undetermined period following clinical signs of recovery from the nervous disease, marked lesions were still present in the nervous system at necropsy.

"These lesions in the nervous system were produced by a ration containing no cereals which might have contributed a 'toxic' substance to account for the degeneration of the myelin sheaths. Neither does a deficiency in unsaturated fatty acids appear to have played a role in their development."

In a second communication Zimmerman<sup>16</sup> demonstrates conclusively that rats fed with a diet deficient in vitamin A develop muscular weakness, incoordination and possibly paralysis of posterior extremities. With these symptoms he finds demyelination of the peripheral nerves and of scattered fiber tracts in the spinal cord.

If fed carotene throughout the experiment the nervous system is unaffected.

Grinker<sup>8</sup> reports on the work of Verden and Petran who carried out the procedures in the experiments on vitamin A lack in the diet of seven *Macacus rhesus* monkeys, three of which were controls. They fed the four experimental monkeys polished rice and fresh butter, aerating the butter to destroy vitamin A. Rats on the same diet developed xerophthalmia and cachexia.

The monkeys were kept on this food for six and one half months; in the last month and a half they lost weight, had diarrhea, anorexia and cachexia. One monkey had generalized convulsions resembling those seen in tetany. "Numerous sections of the central nervous system of all the animals—showed no evidence of destruction of myelin sheaths, nerve fibers or ganglia."

Weil and Davison discussing this paper concurred in these negative findings in the nervous system from their own experiences, but Zimmerman emphasized that there was difficulty in producing vitamin A deficiencies in *adult animals*, as also Suzman<sup>9</sup> had pointed out in his negative results in adult dogs.

In young rats Zimmerman could produce similar degeneration in the nervous system as E. Mellanby did in puppies, by using vitamin A deficient diets.

Woltman<sup>10</sup> states that in the patients showing signs of subacute combined degeneration without achlorhydria an important physiological principle appears involved . . . careful

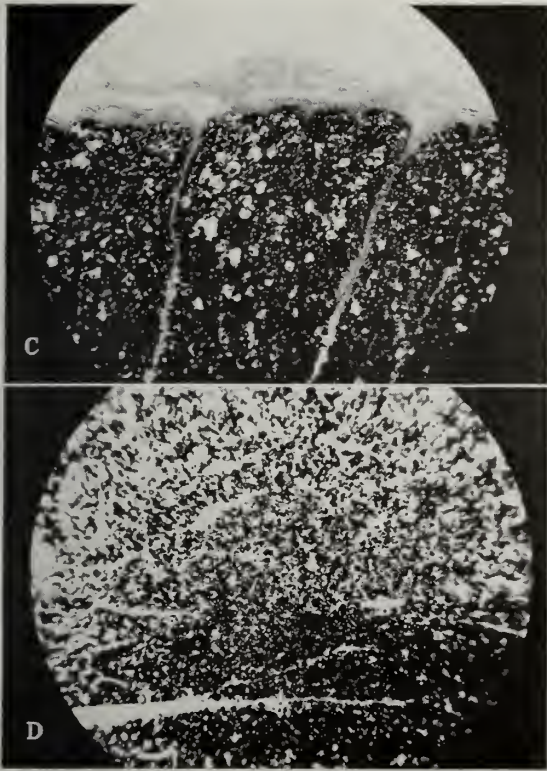


Plate IV. 1938.24 (c) x 120. Enlargement of a segment of the lateral edge of "a" to show scattered holes. (d) x 120. Another region of the same segment (a) to show conglomerate holes.

investigation possibly would lead to the disclosure of some underlying cause, probably nutritional, and in the nature of a deficiency.

Ferraro<sup>11</sup> wished to study among other things, the effects of lesions of the dorsal spino-cerebellar tract in the upper cord in monkeys. This tract, thought to arise from the cells of Clarke's column, is essentially related to the trunk and hind limbs, is mainly uncrossed and terminates in the vermis of the cerebellum. . . . Laminectomy done, dura opened: small lesion was made just lateral to the line of separation of the dorsal and lateral columns at cervical level (higher lesions also produced). Twenty-two animals were used. Section of the dorsal spino-cerebellar tract produced definite and constant symptoms—slight ipsilateral weakness, some degree of hypotonia, diminution of reflexes, slight dysmetria, and in acute stages a diminution of hopping and placing reflexes; . . . occasionally they fell toward the side of the lesion and the ipsilateral limbs were abducted; restiform body lesions gave same symptoms. These disappear in two to three weeks.

Bessey and Wolbach,<sup>12</sup> reviewing the work

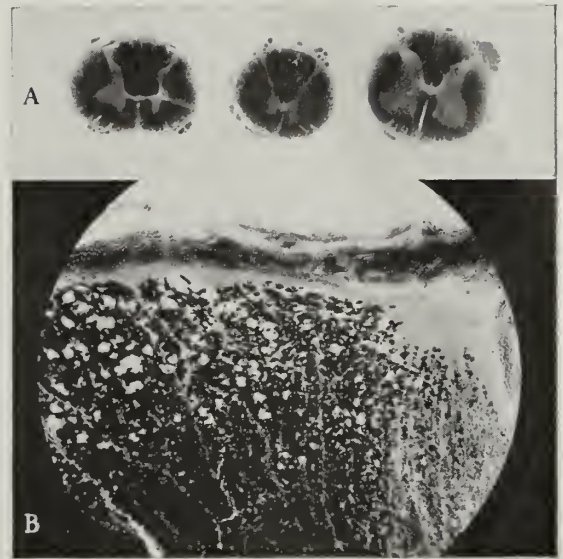


Plate V. 1935.51. (a) x 4.3. Three levels of the cord in the same stain showing peripheral loss of myelin and fibers in all levels, and anomalous size of horns, (anterior and posterior) in cervical—less noted in thoracic and lumbar. (b) x 120. An enlargement of edge of cervical cord near entering root, to show the same holes, same type as 1938.24.

of Zimmerman and E. Mellanby, also that of Suzman, Grinker, Weil, Davison and others who failed to find these lesions, conclude that there is "no reliable evidence that degeneration of myelin sheaths is a specific consequence of vitamin A deficiency. That it does occur in some strains of laboratory animals cannot be denied."

If we review the diet as adhered to in our institutions, the managements are to be congratulated on the menus, which are issued weekly, for including low cost food with high caloric value. Almost every hospital raises the larger part of its own vegetables. It is to be regretted that in keeping the cost down, there is a repetition of the same kinds of vegetables, for these must be the source of all the vitamins. There is not enough of fruits, butter, milk, cheese and egg rations to supply the vitamin A when the vegetables are refused by the patients. Other difficulties will be appreciated by those near the problem of feeding, such as the handicap of many who have no teeth, their dislike of certain foods, or their fear of poisoning. If one also considers the diminished absorbing value in some gastro-intestinal tracts, it becomes a matter of surprise that the patients present such apparent health.

A diet, deficient in vitamin A and carried out over a varying time, would result in the



patient slowly showing leg stiffness, weakness, hypotonia, thickened skin and also night blindness (Jeghers<sup>13</sup>).

As before mentioned in this paper, no individual correlations have been made.

*Human requirements of vitamin A* (Meiklejohn<sup>14</sup>). The probable minimum requirement of an average man . . . is . . . 3,000 I.U. daily. This amount is obtained by the daily consumption of two glasses of milk (500 c.c.), one egg, 3 pats of butter (30 Gm.) and a moderate helping of green vegetables.

I believe that the triad of (1) vulnerability of the periphery of the cord because of its poor blood supply, (2) probable institution anemia, and (3) vitamin A lack as shown by feeding experiments, is responsible for the development of the lesions described in 71.83 per cent of the 600 cords. Hence one may reasonably suggest increasing the content of vitamin A in the diet and encouraging those who can to spend more time out of doors, since one cannot change the circulation pathways. In any case these recommendations can do no harm unless one is deterred by the reported effect of vitamin A carriers (eggs, butter, milk, cheese) upon the arterial system, Leary.<sup>15</sup>

#### Summary

The spinal cord was examined by a myelin sheath stain (Weigert) in 600 unselected cases of mental disease and defect: 315 male, 285 female.

All standard types of psychoses and defect were included in this number.

The ages were spread over 10 decades, but the majority of patients were between 31 and 80 years of age.

Some were subjects of long standing body disease (tuberculosis 78, syphilis 29, carcinoma 24) but more than one-third (38.7 per cent) died of acute infections (239).

Definite changes in the cord were recognized in the myelin sheath stain by the naked eye in 59 or 9.83 per cent, and by microscopic examination in 71.83 per cent. In 109 or 18.33 per cent, no lesions were found.

The association of the limited blood supply of the periphery of the cord, the hypothetical mild anemia, and the diet deficient in vitamin A, are believed to be factors in producing the peripheral degeneration.

#### APPENDIX

The *technic* of turning the body can be accomplished more easily than one thinks, provided it does not weigh unusually much or is not too limp.

With an assistant holding the head so the face will not bruise on completing the turn, a dexterous twist of the body can be made by inserting the right hand, palm down *under* the right, and over the convexity of the left thigh. With the left hand holding the crossed arms, a twitch is made with the right hand while pulling the body toward the operator, turning it quickly. Leave the arms crossed so the scapulae will be spread, and put a clean sponge under the patient's chin. The body should be near the operator's side of the table for ease of the next procedure.

On the table before the operator, in a row, the instruments are placed. They should be in the order of use from left to right with the handles toward the body, and be the following:

Large autopsy knife, back saw, hatchet chisel, wooden mallet, large long handled bone forceps, plain hemostat, curved on the flat, long-handled scissors, narrow bladed amputation knife; also a tank of running water. To the right a cutting board and fixing solutions, formalin diluted 10 times, Zenker's solution, 95 per cent alcohol, or others of choice.

The first incision is made with the whole cutting edge of the knife, from the hair line in the nape of the neck, centrally to the sacrum, in one sweep. (Take care to hold the handle of the knife with the *whole grip* of the hand—not weakened by placing the index finger along the back of the knife. Extra pressure may be exerted by the left hand on the back of the knife.)

With rapid horizontal cuts the skin and upper layer of muscles are laid back on each side of the cut to mid-scapular regions on both sides. Then cuts are made through the muscle bundles along on each side of the spinous processes, down to the transverse ones to free the latter for sawing. The deep muscles are cut across in the lumbar region and then dissected laterally away from the vertebrae. Care to see that the transverse processes of the vertebrae are free of muscle from the high cervical to the low lumbar region is the next step, otherwise the saw will be impeded by muscle tags. Wash knife and replace on table. Insert the saw at an angle to the spinous processes about 1.0 cm. from the base of their attachments to the transverse and saw lightly on either side of the median line from low thorax to as high in the cervical region as is possible. Then step to the head, facing the feet, and continue to saw on either side to the sacrum. The saw should not penetrate through the bones, just make a track in order that chiselling may be possible. Wash saw and replace on table.

With the hatchet-chisel, mallet lightly up and down on either side of the median line in the saw cuts, giving the chisel a prying twist after each blow. When a satisfactory cracking sound follows the twist, no further loosening need be done. Wash chisel and mallet and replace in line.

Test the looseness of the severed column with the fingers of the left hand; if it sways under the grasp, all is ready for the next step; if immobile, more malleting is indicated but beware of too heavy blows—an artefact in the cord is easily produced by too much stress at this point: skill is required more than strength.



With the large knife, cut down between two spinous processes through the ligaments in the lumbar region, and with the long bone forceps clamp down on the spinous process immediately above the transverse cut, rocking it back and forth to increase its looseness, then with little upward jerks raise the posterior part of the neural arch toward the ceiling as far into the neck as possible, and cut free the top part, placing the posterior half of the vertebral column on the table.

Inspect the cord in the canal and look for obstructing spicules or bridges of bone over it; if any are present remove them, taking care not to press on the cord in doing so.

Near the lumbar region the dura will look slightly ballooned where spinal fluid is present. If at the last moment this fluid is desired for Wa. R. or other examination, it may be removed by picking up the dura in two places with hemostats and with an assistant to hold them up, insert a needle on a syringe, or a sterile glass tube drawn out to a point, and aspirate; ten to fifteen cc. may be thus collected.

To remove the cord from its attachments, first palpate lightly the length of the cord with the tip of the index finger of the left hand; it is firm above but where the cauda equina begins a distinct feeling of softness, due to spread of nerve fibers in fluid is transmitted to the finger. Here one picks up the dura with the hemostat; with the curved scissors reaching downward severs the dura and attachments (spinal nerves). Care at this point should be exercised in removing the cord so no artefacts occur. Always sway the cord from side to side exposing nerve roots which are cut alternately on the two sides. The temptation is to hold the cord toward the ceiling but this would produce an acute angle and possible softening of the cord. The removal from the cervical region can best be accomplished by the introduction of the narrow bladed amputation knife (which loosened the dura from its attachment to the foramen magnum when the skull was opened and the brain removed) and which now completes the severing of the cervical nerves. A tug on the *dura* held by the hemostat will locate any obstruction to be cut, and thus the cord is freed.

Weigh the cord—usually 30-40 grams. Lay the cord on the board, posterior columns upward, and palpate gently for inequalities. Do not be surprised to see fat overlying the dura in the thoracic region.

With a pair of blunt tipped scissors, open the thecal sac at the lower end and pointing the scissors upward so as not to harm the cord, cut in the mid-line to the top or cervical region.

Stretch the cut dura from the surface of the cord with the thumbs and forefingers and make observation of the pia-arachnoid. (The sub-arachnoid space is damp proof and is farther separated from the pia in the lumbar region to contain the spinal fluid.) Injection of veins, tributaries to the arterial supply, possible injection, inflammation or plaques of deposit may be seen.

Turn the board so the cord may be cut transversely by light swift strokes of the knife at intervals of 1.0 cm. from the cervical to the lumbar tips holding cord by dura pressed to the board surface. Inspect the sections of cord for loss of opacity in the white matter,

enlarged central canal or other gross change or anomalies.

Slip the flat of the knife under the cord and move it from lumbar to cervical region with the cord slightly elevated for a second look at the cut sections. Select levels for other than formalin fixation and submerge the remainder in a quantity of 10 per cent formalin. The cuts serve to accommodate the cord to the vessel of fluid by rendering the cord more flexible. *Do not be discouraged if you see nothing on gross examination;* a few days in formalin (changed the next day) may bring out a lesion missed in the fresh, or microscopic examination after stains may do so.

On the 3-7 day after the autopsy, trim the cord sections for the purpose of embedding, freezing, etc.

For the Weigert method of demonstrating myelin sheaths, cut one centimeter sections squarely across the various levels of the cord so they present flat top and bottom surfaces. Put them in mordant I. If it is desirable to identify left or right sides, string the sections on a horse hair and tie the ends of the hair. Always use the same side of the cord for the stringing and mention it on the label; this will identify the side by a small hole in the finished section.

#### *Weigert's Method to show Myelin Sheath Degenerations*

- I. Fixation in formalin, 1-10.
- II. Mordant I, for 5 days. Formula: Potassium Bichromate 5 gms., Fluorochrome 2.5 gms., Dist. Aq. (boiling) 100 cc.—Cool and filter.
- III. Dehydrate 70 per cent alc., 80 per cent alc., 95 per cent alc., abs. alc., and abs. alc. and ether in equal parts (each 24 hours).
- IV. Thin celloidin, 3 weeks.
- V. Medium celloidin, 4 days.
- VI. Thick celloidin, 2 days.
- VII. Mount and cut (70 alc.). Time may be saved at this point by embedding sections between thin sheets of celloidin. (See Weigert's method for serial sections at end of this protocol.) Rinse in Dist. H<sub>2</sub>O.
- VIII. Mordant II—over night in incubator. Formula: Fluorochrome 2.5 grams, Water distl. 100 cc., boil and turn out flame; Acetic acid 36 per cent, 5 cc., Copper acetate, finely powdered, 5 grams—Cool and filter; use nothing but glass instruments.
- IX. Wash off mordant in water followed by 80 per cent alc.
- X. Stain 24 hours in incubator 37 degrees in: Formula: 10 cc. Weigert's ripened (6 mos. or more) Hematoxylin; Hematoxylin (a 10 per cent sol. in abs. alc.), 90 cc. dist. water., in which is 1 cc. sat. aq. sol. of carbonate of lithium. Mix water and lithium together and add at time of using.
- XI. Wash in running water 2 hours or more.
- XII. Differentiate in: Formula: Borax, 4 grams; Ferrocyanide of Potassium, 5 grams; Dist. water, 200 cc. 15 min. or more, until grey matter stands out sharply..
- XIII. Wash in running water 10 minutes or more.
- XIV. Dehydrate in
  - 1—70'alc.
  - 2—95 alc.
  - 3—95 alc., 75 per cent, carbo xylol 25 per cent, 3 or 4 minutes in each one.

(Continued on page 340)

## PROPHYLAXIS AGAINST THE COMMON COLD\*

HARTWELL JOINER, M. D.  
*Gainesville*

The common cold is so frequent that we accept it as a natural occurrence, in or out of season. However, the cold exacts a great toll in days lost from work, and as a contributing cause of many deaths each year. It is probably the one cosmopolitan disease of the world. There are no near-accurate statistics as to its frequency, annual cost, or toll. No one is exempt from its attack. There are very few people who never have a cold. Excepting the symptoms of headache and constipation, there is no illness for which more patented remedies are sold, none of which is therapeutically worth the time it takes to mention. Recently we have had several patented and patent-form prophylactics for this condition, to no avail to purchasers.

In this review there are 880 individuals on whom accurate and complete records have been kept to determine, if possible, the value of prophylaxis against colds. Others were started but failed to report regularly and are not included in this series. All ages above eight years are included. Observations covered a period of two years. All persons gave histories of repeated colds of two or more each year. Necessarily a large group, 300, was used as controls, therefore they received no prophylaxis against colds. Since more than 90 per cent of colds had occurred in these subjects between October and May of each year the majority of prophylactics were begun in August, September and October of each year. All of the treated group have had the prophylaxis two years in succession, each getting the same type of vaccine each year. Many of the subjects work in large groups, making for concentrated and frequent exposures. Some have lived and worked in air-conditioned buildings, others in steam-heated plants, some have lived model lives of comfort, while others have had all types of exposures from good sunshine to working with their bodies separated from unheated cement floors by only two to three thicknesses of cot-

ton clothes. People in every status of life in the community are included. Each person has been instructed to live, work and play as usual. These practices seemed necessary to determine the true value of all factors. In addition to living the accustomed daily routine, all but the 300 controls have received different types of prophylactics. An additional 100, working indoors at rather warm temperatures where there was much sweating, were given only daily fruit juices and sodium chloride in their drinking water as prophylactics. The other 480 received the various types of cold vaccines at our disposal. All vaccines given contained combinations of bacteria, antigens, etc.

The methods of administration were as follows: hypodermatically, six doses at four-day intervals, 115; eight doses at four-day intervals, 115, each of these being given by beginning with 0.2 c.c. as the initial dosage and doubling each subsequent dose until the maximum of 1 c.c. was given, keeping all following doses at that level; capsules orally, 130; tablets orally, 120, these being given one each morning for seven days, and then one each Monday and Thursday, to be definite, until twenty such doses were taken. It is quite interesting to note that all vaccines were made from the whole batch of bacteria usually found in the respiratory tract. One of the products is said to be made from bacteria collected and cultured from all sections of the country. Some of the patients have had two or more colds since vaccination, and each cold has its ration in the percentage of the unprotected as if that person were another, which makes for a very accurate determination of actual occurrences.

Results by number and percentage are as follows: of the 300 in the control group, 263 or 87.66 per cent of the 100 receiving daily fruit juices and saline drinking water, 79 or 79 per cent; of the 115 receiving six doses of hypodermic vaccine 43 or 37.39 per cent; of the 115 receiving eight doses of hypodermic vaccine 36 or 31.30 per cent; of the 130 receiving twenty doses of capsules by mouth, 29 or 20.76 per cent; and of the 120 receiving twenty doses of tablets by mouth, 22 or 14.08 per cent have had one or more colds. These figures then indicate that 12.34 per

\*Read before the Medical Association of Georgia, Atlanta, April 26, 1939.

cent of the untreated, 21 per cent of those receiving fruit juices and saline, 66.61 per cent of those receiving six hypodermic doses, 68.70 per cent of those receiving eight hypodermic doses, 75.24 per cent of those receiving capsules by mouth, and 81.92 per cent of those receiving twenty tablets by mouth, have had no colds in the two years' study. Incidentally, there is no appreciable difference in the frequency of protection after one series of vaccinations and two series.

I have many more detailed statistics that you don't want to hear, simply wishing to give you the summary of results. For instance, the greater frequency of occurrences were in those who lived or worked, or did both in dry, steam-heated buildings. The next highest was in those who gloated over the fact they played a game of golf one day a week, or its equivalent, and go out from an indoor office, worked up a good sweat, cooled off immediately and went along as usual. The lowest incidence was in those who lived and worked in good buildings, but spent a great deal of time outdoors. Certainly a very high percentage of those exposed to bad weather, such as rain, wind, snow, etc., had many more colds. Another observation was that those who worked indoors, hard enough to sweat, and drank saline water had a slightly lower incidence than those who did not drink this water; and, of course, those working in groups always had higher incidences of occurrence—meaning that colds must be contagious.

Now, I would ask of you the same question I have asked myself many times: Are these people protected from colds by our present-day methods of prophylactics? I am forced to answer in the affirmative that we must be getting some very brief protection. (By parenthesis, the vaccinated group has been appreciably less attacked in the recent epidemic of la grippe, influenza or whatever you diagnosed them, than have the others. Statistics are not completed to date for the recent epidemic). However, it may be said that present methods of protection are not satisfactory. Our best method at this time is to advise patients of a few simple rules: avoid exposures to inclement weather (women might fare better in the longer style dresses),

clothe comfortably, get some outdoor exercise daily instead of trying to keep fit by a hard game of bowling once every week or so, regular habits of living, hard workers should replace salts lost through sweating by drinking normal saline water, and take one of the combined vaccines.

Apparently, by this exceedingly small series of cases, the preference of cold vaccines would be one of the oral type, with one precaution, viz., do not give the oral vaccine to those of allergic history. I have seen some unfavorable results.

### Conclusions

1. Those who have colds receive some protection by taking cold vaccines.
2. The vaccine of choice is one of the oral type which averages about 80 per cent protection as against about 63 per cent by the hypodermic route.
3. Prophylaxis against the common cold with our present therapeutic agents is not entirely satisfactory.

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### DISCUSSION ON PAPER OF DR. HARTWELL JOINER

*Dr. John W. Simmons* (Brunswick): I think it would be a shame to allow this paper of Dr. Joiner's which has shown original research in a field covering a malady that is so widespread and possibly produces more loss of time than any other disease in the United States of America, to go undiscussed.

Dr. Joiner has classified the prophylactic methods used to prevent colds and has made a scientific study. It is possible that the total number of cases is rather limited. The region in which he worked was necessarily restricted but the end-result so far as I can possibly recall in the articles that I have read from time to time in the literature compare very favorably with the results that have been attained in other places.

Those of us who have been in the habit in the fall at the beginning of the so-called cold season of trying to protect our patients have found ourselves sometimes at a loss in giving them the advice they should have and which he gives in following through the habits of a great many of these patients. We find ourselves disappointed sometimes in the measures that we have recommended, but more often we find that when we are called afterward they have been disappointed in us and our treatment. We find that in more than one point they have broken the regimen we have laid down for them.

I just want to compliment the Doctor on this study and say that if we had a great many more studies by the physicians of this Association of those common diseases that afflict us from day to day and cause so much loss of time from industry and business houses, the great public would render to us the thanks that would be warranted for the care and consideration that we gave. Thank you very much, Doctor.



*Dr. A. J. Mooney* (Statesboro): I believe if the incidence of other conditions besides common colds were eliminated, the oral vaccine would show a higher percentage of induced immunity than the Doctor's figures indicate. Sometimes it is difficult to determine whether a condition is acute exacerbation of chronic sinusitis or a common cold. I really think that is a big question to decide.

*Dr. W. M. Cason* (Sandersville): Dr. Joiner sent me a copy of his paper a few days ago and I regret very much that I was not here to hear it read but having read it before. I know something of its contents. This subject of "The Common Cold" is one that is giving us a great deal of trouble because we have no distinct disease entity and no distinct etiology, therefore, we begin our task of prophylaxis with a very great handicap. I am sure that you will agree with me that colds are not clinical entities and that they defy definition on clinical grounds. Dochez and his co-workers present evidence to show that the common cold is caused by a virus. Accepting this view, organisms found in the upper respiratory tract would be either secondary invaders and potentially dangerous or chance inhabitants activated into a virulent state by some unknown factor. If this is true, the individual with a cold may have the acute or first phase of the disease produced by a virus or some unknown factor, and a later phase caused by secondary organisms. The only reason for vaccinating against the common cold then would be based on the presumption that the use of a vaccine would shorten this secondary phase or perhaps prevent its occurrence.

The results obtained by Dr. Joiner are very gratifying and it is especially encouraging to learn that greater benefit is obtained from vaccine administered orally than is obtained from vaccine administered hypodermically.

I have had only a limited experience in general practice with this problem of vaccination against the common cold and in no instance have I attempted to correlate treated cases with controls but I have kept records of cases treated with clinical results, subjective symptoms and the opinion of the patients as to whether or not they were benefited. Of those patients treated by hypodermic prophylaxis only 18 per cent were benefited; of those treated by the administration of capsule prophylaxis 23 per cent were benefited and of those treated by the administration of tablet prophylaxis 25 per cent were benefited.

I agree with Dr. Joiner that we do no doubt receive some benefit from the present methods of prophylaxis against the common cold but it is far from satisfactory and since there are so many undeterminable factors in the development of the common cold, we hardly know just what value to place upon our prophylactic treatment.

I feel that we have hardly scratched the surface as it were in prophylactic treatment of the common cold and that here is an opportunity for real scientific investigation before we can hope for best results. We must develop the etiology of the common cold and perhaps break this term down into several distinct disease entities just as Vitamin B has been broken down into several factors.

I am sure we will be amply repaid for our efforts and study upon such a protean disease.

*Dr. George L. Echols* (Milledgeville): I wish to mention this subject of the common cold as being quite a problem in a state institution such as I represent or happen to be from. At Milledgeville State Hospital these common colds start in and last for some time. In some of the wards as many as half of the patients are sick in bed running temperature. We have had a few, a very few deaths; practically none except among the elderly patients who developed bronchial pneumonia. My reason for making these remarks is not to tell you anything but to ask Dr. Joiner a question. What method of procedure would you advise in a case of closely housed people? Which remedy is most nearly fool proof? What do you advise is easiest to administer and above all means, what is the cheapest?

*Dr. Hartwell Joiner* (Gainesville): Replying to Dr. Echols, I would suggest that there is nothing we can do about improving crowded conditions. The cheapest one of the oral vaccines is the tablet and can be bought in great quantities rather inexpensively and the manufacturers will take into consideration the fact that it is a State Institution. They have been very courteous and I think you can probably get your money's worth.

I have excluded chronic sinusitis and treated prophylactically only those things where people have had acute—not chronic—but recurrent colds. In regard to balanced diet, I'd like to repeat that these people have had fruit juices, whether from Florida, California, or in the can. I just presented you the facts from a study of three years. I hope in the next five years we will have more. Let's do something with the common cold.

#### SPONTANEOUS PNEUMOTHORAX COMPLICATING PNEUMOTHORAX THERAPY WITH RECOVERY AFTER PNEUMONOLYSIS: REPORT OF THREE CASES

Since November 1936 spontaneous pneumothorax has developed in three patients under the case of J. W. CUTLER, Philadelphia (*Journal A. M. A.*, July 30, 1938), following a therapeutic refill, which was the result of a tear in the visceral pleura at the base of an adhesion, with the adhesion remaining attached to the lung and preventing self closure of the perforation. In two, the spontaneous pneumothorax occurred two and fourteen months respectively after pneumothorax therapy was instituted and successfully maintained. Both of these patients had a simultaneous bilateral artificial pneumothorax. In the third patient, with unilateral collapse, the spontaneous pneumothorax developed immediately after the first refill. The complication failed to respond to the usual therapeutic procedures, including continuous decompression. Closed intrapleural pneumonolysis was carried out to sever the pleural adhesions and was successful in permanently abolishing the spontaneous pneumothorax in each case.

Mental disease often follows on intolerable conditions of living; mental defect is associated to a great extent with impoverishment of stimulation; delinquency comes with neglect and wrong guidance.

—Hygeia.

## THE PRESIDENT'S PAGE

### THE MEDICAL PROFESSION VINDICATED\*

The decision rendered by the Court in the District of Columbia setting aside the indictment against the American Medical Association and ruling that the medical profession is a learned profession and not an association of tradesmen comes as welcome news, but hardly as a surprise. It probably displeases and deals a severe blow to the aims of the "patriots" who met in Washington on July 18, 1938, to celebrate the day when the affairs of the medical profession would pass to new leadership.

It is not reasonable to suppose that the Association, the Medical Societies of the District of Columbia and Harris County, Texas, and the twenty-one individual physicians of the highest standing could be honestly indicted and brought to trial under the Sherman anti-trust law. The court took occasion to severely criticize the devious and questionable methods used by Mr. Thurman Arnold and other members of the Department of Justice, who succeeded in securing the indictment against these societies and individuals.

Many will recall the unusual conduct of these government underlings, as they used the power and prestige of a great democracy to embarrass and belittle the medical profession in order that they might establish a communistic regime in this land of ours. The purpose of the indictment, however, is not quite so simply explained as this statement may suggest.

The nucleus of the entire scheme is the Group Health Association, Inc., in Washington, established by the Home Owners' Loan Corporation, a Federal agency. Employees were coerced, cajoled and induced to become members of this group, until there were 3,600 members enrolled. The organization was put under lay control, physicians were hired, and a sum of \$40,000 of H.O.L.C. funds was turned over to this private enterprise. The District of Columbia Medical Society has in its by-laws a provision that contracts for services by its members must be submitted to a committee before they can be accepted. But

feeling secure in the caresses of the New Deal, those members who were hired refused to submit their contracts. They were expelled by the Society for refusing to comply, and thus were deprived of the courtesy of consultation with members, and the privilege of attending patients in approved hospitals.

Membership in the group has gradually fallen to near the vanishing point. Dues have been raised several times, and the overworked staff has a high rate of turnover. Reduced funds and deterioration of equipment have greatly weakened the financial status of this "guinea pig" of the New Deal.

There are other phases of this unusual situation, but the immediate governmental concern has been in the preservation of its pet scheme, the Group Health Association.

The results of this court decision are far-reaching. Besides setting aside the indictment, it will show the ardent humanitarians that justice and truth still prevail. It also seems likely that the huge sum of impounded taxes of the American Medical Association will now be refunded. This tax burden, a scheme to hurt the Association, was raised only after it was declared to be a "business" organization, and assessed accordingly.

This turn of events has come at an opportune time, and it should be used to the best advantage by us to combat unfavorable legislation, especially the Wagner Health Bill which has been before the committee for some time, and in its vagueness, presents possibilities for complete regimentation of the medical profession. It has recently come in for much unfavorable comment from lay sources, and many members of Congress oppose it, our own Senator George being one of the opposition leaders.

We are in the ascendancy now, and with a united front we shall preserve for ourselves the position of importance and respectability to which we rightfully lay claim. We must not become careless or vainglorious, but continue to work for the good of the people whom we serve. If we have their welfare as our guide and inspiration, and at the same time give full support to organized medicine, we shall continue to make progress.

WM. H. MYERS, M.D.

\*The government has filed an appeal since this article was written. Ed.

# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

AUGUST, 1939

## A.M.A. INDICTMENT QUASHED\*

Justice James M. Proctor, upholding a defense demurrer to indictments, ruled on July 26 that the American Medical Association and its fellow defendants were not engaged in a trade as defined by the antimonopoly statutes. Counsel for the doctors had contended their activities could not be governed by the Antitrust Law, that they were engaged in a "learned profession" rather than a trade. On December 20, 1938 a District of Columbia Grand Jury, acting on evidence presented by the Justice Department, indicted the American Medical Association, the Medical Society of the District of Columbia, the Washington Academy of Surgery, the Harris County (Texas) Medical Society and twenty-one individual physicians for violation of the Sherman Antitrust Law. These organizations and individuals, the indictment read, were "engaged in a continuing combination in conspiracy in restraint" of trade in hampering the activities of Group Health Association, Inc., for the District of Columbia, an organization established in 1937 to hire physicians and nurses and provide hospital care on a cooperative basis to government employees. Defense attorneys had contended that all their clients' activities were directed solely at the maintenance of the ethics and standards of the profession.

At the headquarters of the Association, officials, including Dr. Olin West, Secretary, and Dr. Morris Fishbein, Editor, said:

"The principles and policies of the American Medical Association do not forbid nor have they ever contemplated any opposition to a well considered expanded program of medical service, when the need can be established; neither is there any fundamental principle or policy which in any manner opposes aid to the indigent when indigence can be established.

"The American Medical Association has always welcomed investigation by any authorized agency of the nature of its organiza-

tion or of the conduct of its work or of its activities, firmly reliant in the belief that every action taken by the Association has been in accordance with its constitutional organization in the interests of the public welfare for advancing standards and quality of medical service for the American people; and that at no time has it violated the established law of the federal, state, or municipal governments of this country. Moreover, by the very nature of its organization, it has preserved constantly the democratic principles on which the Government of the United States is founded and maintained."

## CANCER EDUCATION

The past few years have seen tremendous efforts put forth to educate the layman concerning the early diagnosis of cancer, as well as warning each person not to disregard the early signs and symptoms which appear in this serious disease. Evidently this work is bearing fruit, as all cancer clinics throughout the country report a steady increase in the number of patients who appear with early cancer. It also has resulted in an increase in the number of cancer cases reported to the state boards of health.

The only way the death rate in Georgia can be reduced is by early diagnosis and early treatment. A patient who comes to the doctor suspecting he has cancer has, in the average case, had active symptoms of cancer for at least six months. By further educating the layman this period of neglect should be easily cut from twenty-five to fifty per cent.

After a patient consults a physician, one month should be considered ample time for a correct diagnosis, and, undoubtedly, in a large proportion of cases the diagnosis may be accurately made within twenty-four to forty-eight hours. The fact that patients are consulting doctors and clinics earlier now places the responsibility on the shoulders of the physicians.

In every part of the State physicians may be grouped under several heads. Those interested in cancer and alert in learning all they can as to the diagnosis and proper treatment of this disease.

Another group is composed of men only mildly interested in cancer, spending only a moderate amount of time in study to improve their diagnostic and therapeutic ability for

\*Since this editorial was written, the government has filed an appeal.



the diagnosis and treatment of these patients.

There is another group not interested in cancer, and who make little effort toward improving their diagnostic and therapeutic ability. It is this large group which holds the future of early cancer treatment and diagnosis in its hands. In a study made by a large hospital, which treats cancer only, it was found that the greatest responsibility is taken by the first physician whom the patient consults. They found that his errors fall under five main heads:

1. Inability to diagnose the condition.
2. Wrong treatment.
3. Wrong advice.
4. No treatment and no advice.
5. Fairly acceptable treatment, but a delay in obtaining consultation from proper sources.

Under wrong treatment are found many cases, particularly of the mouth, lip and cervix, who have been treated by cauterization with silver nitrate.

Another group are the patients who have been told by the doctor not to "bother" about a lump or tumor, until it "bothers" them, necessarily resulting in a loss of valuable time during which the curative stage passed by. Many physicians neglect the use of a vaginal speculum for thorough examination of the cervix; also omit digital examination of the rectum, not realizing that seventy-five per cent of cancer of the colon is within four inches of the anus.

It is a problem of scientific medicine to bring cancer education to this large group of indifferent physicians, so that all may recognize the early symptoms and signs of malignancy, and, if they do not desire to treat this type of disease, to understand the importance of referring these patients for proper treatment of their illnesses. In this way only can the medical profession relieve itself of the responsibility for the increased death rate in cancer, a large proportion of which is due to neglect of ordinary and simple methods of diagnosis.

J. J. CLARK, M. D.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

## INFECTIOUS MONONUCLEOSIS (GLANDULAR FEVER) WITH TEMPORARY SEROPOSITIVE KAHN

The paper on Infectious Mononucleosis by Drs. Allen H. Bunce and Mark S. Dougherty, Jr., published in the April issue of THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA, presents a splendid discussion of a disorder formerly called glandular fever. The term was used by doctors and understood by patients as a benign disease lasting about two weeks which invariably terminated in recovery. The change in names seems to have disconcerted in some instances both doctors and patients and occasionally greatly increased anxiety and expense. I think glandular fever is a better term to use in explaining the trouble to the families of these temporarily ill young people. While it is true that it does not fully describe the disease, the same may be said about acute mononucleosis or infectious mononucleosis.

On Jan. 6, 1938, I saw a fine sixteen-year-old student and splendid athlete with reddened throat, fever, enlarged posterior cervical, epitrochlear, axillary and inguinal glands, accompanied by an odor from nose and throat similar to ozena in tertiary syphilis. A Kahn blood test was reported by the State Branch Laboratory of Albany as strongly positive, but the blood picture found in my office and the laboratory was typical of infectious mononucleosis (glandular fever). My textbooks failed to give any light on the subject. History and physical examination were negative for syphilis, as expected, and both parents' blood gave negative Kahn reactions. The patient was given only expectant treatment, but the Kahn was repeated every two or three days and was found strongly positive for two weeks, after which it began fading out and reached negative at the end of about four weeks where it remained. The patient is now in excellent health and attending college. Institution of syphilitic treatment would have been unfair because of the strongly positive Kahn which was found, for it proved to be only temporary and, moreover, not due to syphilis.

J. A. REDFEARN, M.D.

Albany, Ga., May 6, 1939.

### MORE RADIUM FOR GEORGIA

After consultation with State departments of health, the National Cancer Institute of the U. S. Public Health Service has recommended that about 8½ grams of Government owned radium valued at \$180,000 be loaned to various hospitals in 20 different States and the Territory of Hawaii.

Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service and Chairman of the National Advisory Cancer Council, stated that the requests received from approved institutions located in various parts of the country would be filled in the next 3 or 4 weeks. The radium is being tested by the U. S. Bureau of Standards and is being prepared for shipment in specially constructed lead containers.

Applications for the loan of radium for the treatment of cancer have been received from California, Connecticut, Georgia, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Nebraska, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Texas, Vermont, Virginia, Washington, and Hawaii.

Los Angeles County Hospital, Los Angeles, California, was the first hospital in its State to apply for a radium loan and the application has been approved.

In Colorado, the Bonfils Foundation Tumor Clinic and St. Luke's Hospital, both at Denver, will be the first borrowers of the National Cancer Institute's radium in that State.

St. Francis Hospital, Hartford, Norwalk General Hospital, Norwalk, Grace Hospital, New Haven, Danbury Hospital, Danbury, and Stamford Hospital, Stamford, are sharing in the loans to Connecticut institutions.

Georgia's recipients will be the City County Hospital at LaGrange and University Hospital at Augusta.

The Sedgwick County Tumor Clinic at Wichita, Kansas, the Charity Hospital of Louisiana at Shreveport, and the Norton Memorial Infirmary, Louisville, Kentucky, are the recommended hospitals in their States.

The distribution in Maryland will include Johns Hopkins Hospital and University Hospital, both of Baltimore. The University of Michigan Hospital, Ann Arbor, will be the first institution in its State to receive a loan of radium.

A total of 873.3 milligrams has been approved for hospitals in Missouri, and will be divided among the following institutions: Missouri State Cancer Commission (Fulton Hospital), St. Louis, Barnard Free Skin and Cancer Hospital, St. Louis, Missouri State Cancer Commission (for use in new State Hospital), and Kansas City Municipal Hospital, Kansas City.

Nebraska will receive a loan for University of Nebraska Hospital, Omaha.

In New Jersey, the loaned radium will go to Newark City Hospital, Newark, and Newark Beth Israel Hospital, Newark.

New York hospitals recommended by the Cancer Institute for loans of radium include Strong Memorial Hospital, Rochester; Albany Hospital, Albany; Meadowbrook Hospital, Hempstead; Binghamton Hospital, Binghamton, and the Dutchess County Tumor Clinic, Poughkeepsie.

Duke University Hospital at Durham, North Carolina; Mihericordia Hospital, Philadelphia, Pa.; Nashville General Hospital, Nashville, Tenn.; Baroness Erlanger Hospital, Chattanooga, Tenn.; the Medical College of Virginia, Charlottesville, Va.; the Tumor Institute of the Swedish Hospital, Seattle, Washington, and Queen's Hospital, Honolulu, Hawaii, are among the other institutions recommended for loans of radium.

No applications have been received as yet from Alabama, Arizona, Arkansas, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Maine, Massachusetts, Minnesota, Mississippi, Montana, New Hampshire, Nevada, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Utah, West Virginia, Wisconsin, Wyoming, and the District of Columbia.

Because of its penetrating rays (next to cosmic rays, the most penetrating of all rays), radium is useful in treating cancerous growths in parts of the body which are otherwise inaccessible. Although costly at the outset, radium can be used over and over again through thousands of years. It is scientifically estimated that radium loses only half its strength every 1,700 years.

In approving the various applications, officials of the National Cancer Institute made their choices on the basis of need for radium and the competence of staff and adequacy of facilities for radium treatment. Needs are much greater in some areas of the country than in others although practically all States and sections could use more radium to advantage if they had it. Authorities state that there should be 2 grams of radium for every million people, but it is reliably estimated that only about 133 grams are in use in the United States at the present time.

The National Cancer Institute still has about 1,300 milligrams of radium which has not been allotted on a loan basis and applications for radium loans will continue to be considered. Institutions receiving the government-owned radium have to agree to make no charges to the patients for its use and meet high standards regarding personnel administering the treatment.



**WOMAN'S AUXILIARY : OFFICERS 1939-1940**

President—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

President-elect—Mrs. H. G. Banister, 11a.

First Vice-President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Second Vice-President—Mrs. C. H. Richardson, Milledgeville.

Third Vice-President—Mrs. Loren Gary, Jr., Shellman.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

Treasurer—Mrs. R. A. Woodbury, Jr., 1232 Belmont Drive, Augusta.

Historian—Mrs. J. L. Nevill, Metter.

Parliamentarian—Mrs. L. W. Williams, 135 East 45th Street, Savannah.

*Muscogee County Organized*

Organization of a Woman's Auxiliary to the Muscogee County Medical Society was perfected at a recent meeting held in Columbus. Mrs. William Cook was elected president; Mrs. Bert Tillery, vice-president; Mrs. W. R. Jones, secretary; and Mrs. Joseph Gaston, treasurer. Mrs. Eustace Allen, president of the Woman's Auxiliary to the Medical Association of Georgia, and Mrs. William Anderson, both of Atlanta, attended the meeting and assisted in organization. The members and guests were entertained at a luncheon after the meeting.

Members of the Auxiliary are: Mesdames William Cook, Bert Tillery, W. R. Jones, Joseph Gaston, Arthur Berry, Francis Blackmar, Mercer Blanchard, O. C. Brannen, John Bush, W. F. Jenkins, J. H. Johnson, George Murray, Frank Schley, John Thompson, J. A. Thrash, Bruce Threatte, J. N. Willis, James Spikes, John Walker, John Quinn, Guy Dillard and W. L. Cooke.

The Muscogee County Auxiliary recently entertained the graduating class of the nursing department of the Columbus City Hospital with a luncheon. The class colors of yellow and white prevailed in the decorations and at each graduate's place was a box of stationery, wrapped in yellow and white. Present were Mrs. William Cook, president of the Auxiliary; Mrs. Bruce Threatte, chairman of the luncheon committee, and members of the graduating class, Misses Evelyn Gibson, Pauline Moultrie, Mary Pike, Esther Snell, Mary Huguley, Ruth Glass, Mary Boggs and Venarah Stephens.

*Macon County Organizes*

Macon county recently organized. Eligible women have shown a keen interest in the organization, and it promises to rival larger county groups in enthusiasm. Mrs. C. P. Savage, of Montezuma, was elected president. Other members are Mrs. H. C. Derrick and Mrs. C. A. Greer, of Oglethorpe; and Mrs. S. L. Harp, of Marshallville.

*Fulton County*

Mrs. Forrest M. Barfield was elected president and Mrs. Olin S. Cofer president-elect of the Woman's Auxiliary to the Fulton County

Medical Society at the May meeting, held at the Academy of Medicine in Atlanta. Other officers elected were Mrs. Bolling Gay, first vice-president; Mrs. Irvin Willingham, second vice-president; Mrs. S. Ross Brown, treasurer; Mrs. Stacey Howell, corresponding secretary; Mrs. Walker Jernigan, recording secretary; Mrs. Crawford Barnett, historian; Mrs. Marion T. Benson, parliamentarian; and Mrs. James P. Hanner, auditor. A health film was shown at the meeting and Mrs. Herbert Alden presented an interesting program on Jane Todd Crawford. Mrs. Barfield reported on the business sessions of the recent state convention of the Auxiliary, held in Atlanta, and Mrs. H. Cliff Sauls told of the social activities. Mrs. Bernard L. Shackelford, president of the Fulton County Auxiliary, was given a rising vote of thanks for the increase in membership during the year. Luncheon was served, with Mrs. W. W. Anderson, chairman of the committee in charge.

At the June meeting of the Auxiliary new officers were installed. Reports were given by Mrs. J. Harry Lange, historian; Mrs. Eugene Daniel, auditor, and Mrs. Calvin Stewart, scrapbook chairman. Following the business meeting and installation, the members were entertained at luncheon with Mrs. Ed H. Greene, chairman of the committee in charge.

*News Requested*

Mrs. J. Harry Rogers, state chairman of press and publicity, has written the presidents of all Auxiliaries in the State urging them to appoint press chairmen, so that news of each group may be printed in the Journal of the Medical Association of Georgia during the year. Excellent cooperation has been received during the past from most of the local organizations.

Press chairmen are urged to send to Mrs. Rogers, 134 Huntington Road, N. W., Atlanta, the news of interest from their Auxiliaries. This should include programs, speakers, any interesting work that has been accomplished or anything of importance that will be undertaken. Chairmen are asked to make their reports as brief as possible, due to the fact that the Auxiliary space is limited. News should be received by the 15th of the month preceding publication. Members



are reminded that sometimes articles have to be left out until a later date due to the fact that the allotted space is already filled, but each item sent in will be published.

#### Baldwin County

The Auxiliary met recently at the home of Mrs. H. D. Allen, Sr., in Milledgeville, with Mrs. E. W. Allen and Mrs. H. D. Allen, Jr., co-hostesses. Mrs. C. H. Richardson, president, gave an interesting report of the recent state convention held in Atlanta and turned over to the Auxiliary the Mrs. James N. Brawner Cup, which was won by this group for outstanding work during the year. Officers and committee chairmen gave reports of the year's work. The nominating committee presented names of the following officers, who were unanimously elected: Mrs. C. H. Richardson, president; Mrs. L. P. Longino, secretary, and Mrs. Sam Anderson, treasurer.

#### Habersham County

The Auxiliary to the Habersham County Medical Society met with Dr. and Mrs. Horace E. Crow at Alto, recently. Mrs. W. B. Schaefer, of Toccoa, Doctor's Day chairman for the State, addressed the meeting. Mrs. C. M. Sharp, Alto, reported on the recent state convention in Atlanta. In the absence of the president, Mrs. C. J. Hardman, of Tugalo, Mrs. W. H. Garrison, of Clarksville, presided.

#### Richmond County

The Auxiliary to the Richmond County Medical Society met recently at the home of Mrs. Lucius Todd in Augusta, with Mrs. Edgar Pund and Mrs. E. S. Sanderson co-hostesses. Plans were made for the Doctor's Day party to be given at Dr. and Mrs. Joseph Akerman's farm. Mrs. Ralph Chaney, former president of the Woman's Auxiliary to the Medical Association of Georgia, exhibited the past president's pin, which was presented to her at the recent state convention in Atlanta.

The U. S. Public Health Service in a Press Service release announces that the New Cancer Institute Building at Bethesda, Maryland, was dedicated on June 22. Senator Homer T. Bone of Washington was co-author of the National Cancer Institute Act of 1937. In the bill an annual appropriation of \$700,000.00 was authorized for cancer research and investigations. The Act also authorized the erection of a \$750,000.00 building to be used in connection with the work. Speakers at the dedication exercises were: Senator Homer T. Bone and Dr. Thomas Parran, surgeon general of the United States Public Health Service. When the buildings are completed and equipped, the scientists now stationed at the Gibbs Memorial Laboratory, the old Institute of Health in Washington, D. C., will be transferred to the new quarters in Bethesda.

#### LESIONS IN SPINAL CORD IN MENTAL DISEASE AND DEFECT RECOGNIZED BY MYELIN SHEATH STAIN

(Continued from page 331)

4—95 alc. 50 per cent, carbo xylol 50 per cent.

5—95 alc. 25 per cent, carbo xylol 75 per cent.

6—carbo xylol\*

7—Xylol

XV—Mount Canada balsam.

\*The stock sol. of carbo-xylol is 10 per cent carbolic acid in xylol.

#### Weigert's Method for Serial Sections

Place sections in rows on sheet of filter paper wet with 70 per cent alcohol. Pour very thin celloidin over a glass plate, hold vertically to drain off excess of celloidin. Place sheet of sections face down on this plate; blot, peel off filter paper (the sections will stick to celloidin sheet).

Hold plate vertically again and pour another film of celloidin over. Blot again. Dry slightly. Immerse in 70 per cent alcohol a moment or two to harden celloidin. Loosen around edges with knife, then peel off film from plate.

Carry these sheets of sections through following solutions entire. Cut apart into separate cases before the last 95 per cent dehydrating alcohol.

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# GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

## THE INCIDENCE OF ACUTE ANTERIOR POLIOMYELITIS IN GEORGIA 1934-1938

Since at the present time there is considerable interest in poliomyelitis due to the large number of cases in one of our neighboring States, I feel that it might be interesting to look over the reported cases in our own State during the past five years. During the period 1934-38 inclusive, there were reported to the Georgia Department of Public Health 420 patients with this disease.

TABLE I  
POLIOMYELITIS BY YEARS

Year	Cases
1934.....	48
1935.....	37
1936.....	165
1937.....	94
1938.....	76

It is evident that 1936 was by far the largest year with 165 cases; 356 of the cases were reported by color, sex, and age. By referring to Table II, the distribution of the cases may be studied.

TABLE II  
POLIOMYELITIS REPORTED IN GEORGIA BY COLOR, SEX, AND AGE  
1934-1938

															Total				Total		
1934			1935			1936			1937			1938			1934-1938						
Age	White		Col.	White		Col.	White		Col.	White		Col.	White		Col.	White		Col.	by		
Groups	M	F	M	F	M	F	M	F	M	F	M	F	M	r	M	F	M	F	Age	Groups	
0-4		4			5	3	2	2	51	31	10	10	15	14	7	6	91	61	23	22	197
5-9	2	1			2	3	1	1	12	10	1	5	9	12	1	1	28	31	6	9	74
10-14			4	3	1	3	2	1	6	3	2	2	5	5	1	1	19	16	8	5	48
15-19					2	2											7	5	1	1	14
20-24					1	1			4				2				7	1			8
25-29			1														1				1
30-34								1					1			2	2				4
35-39	1				2												1	2			3
50-54								1									1				1
Unknown								3	1				1			1	4	1	1		6
Total	3	10	3		11	14	5	4	78	45	14	17	33	34	9	8	160	120	39	37	356
Race Total	13		3		25		9		123		31		67		17		52		16		280
Grand Total	16				34				154				84				68				356

The total by age groups for this five-year period is very interesting. The 0-4 age group represents 19 7cases or 55.3 per cent of the total cases reported. If we add the 5-9 age group we increase our number of reported cases by 74 and the percentage of 76.1 represents the 0-9 age group or more than three-fourths of the entire number of reported cases. Then if we care to add the 48 cases of the 10-14 age group we have the 0-14 group accounting for 89.6 per cent of the entire cases reported for the five-year period. I think this is about what we should expect, since in Georgia we have a large rural population. Past experience with this disease has shown that this disease tends to occur during earliest ages in cities, at slightly older ages in suburban

areas, and in still older age groups in rural areas.

If we examine the totals by color for the five-year period, we see that in our experience of reported cases the white race accounts for 280 cases or 78.7 per cent of the total cases. This leaves only 76 cases or 21.3 per cent of the total for the colored race. In view of the fact that there is supposed to be no racial difference, Table III is rather interesting.

TABLE III  
RACIAL DISTRIBUTION OF POLIOMYELITIS

Race	Population (Estimated 1936)	Per Cent of Population	Per Cent of Patients Having Poliomyelitis
White	1,946,386	63.7	78.7
Colored	1,107,001	36.3	21.3
Total	3,053,387	100.0	100.0

Approximately 54 of the white cases reported would have to be shifted into the colored column in order to give our reported incidence the same attack-rate in both groups. Statistically I do not think that this observation has any significance since the number of cases is small, but it does appear that white patients are more frequently brought to the doctor, are more often seen more than once,

and consequently, better diagnosed and reported.

In looking at the sex distribution, it is seen that 199 males and 157 females had the disease during the five-year period. This represents 55.9 per cent and 44.1 per cent respectively and is well in agreement with experience elsewhere.

Discounting a localized epidemic in 1936, the monthly incidence for the ten-year period 1929-1938 would place the peak of this disease probably during the last part of August with a very gradual decline during September and the first part of October.

During the period January 1-July 21, 1939, 58 cases were reported in Georgia.

The number of cases by counties follows:

County	No. Cases	County	No. Cases
Bulloch	1	Henry	1
Candler	2	Jenkins	1
Chatham	5	Jones	1
Cobb	1	Montgomery	1
Cook	1	Polk	1
DeKalb	3	Richmond	13
Effingham	4	Schley	1
Emanuel	1	Sumter	3
Floyd	1	Tattall	1
Fulton	10	Toombs	2
Gwinnett	1	Wayne	1
Habersham	1	White	1

This incidence is considered normal for the State. The cases occurring in Richmond are felt to have a direct connection with the large number of cases occurring in South Carolina.

The following are some of the facts known about the disease:

1. It is a specific disease due to a filterable virus and has specific pathologic changes.

2. The virus is transmissible from man to monkey and from monkey to monkey.

3. The virus has been isolated from patients with the disease and well, healthy people in contact with patients having the disease.

4. No conclusive evidence has been brought out to show that the disease is found in any of the lower animals or that it is transmitted by any insect vector.

5. The disease is strikingly one of the young age groups.

6. Males are more frequently attacked than females.

7. There is apparently no racial difference.

8. Social and economic differences apparently have no influence on the disease.

9. The disease has largely been rural and suburban rather than urban.

10. The distribution is world-wide but the temperate zone has been more affected than the subtropical and tropical zones.

11. Prior to 1935, no large epidemics had occurred below the Mason-Dixon Line.

12. Epidemics teand to spread in wave-like fashion with diminishing amplitude.

12. Epidemics occur in the summer months—July, August, and September having the largest incidence.

14. Epidemics do not occur in the same locality in successive years.

C. D. BOWDOIN, M.D., *Director,*  
*Division of Preventable Diseases.*

The type of food given an infant is not a factor in causing the amount of his energy. Experiments have proved that there is no specific food that can have any influence at all on the baby's energy.—*Hygeia*.

## MENO-METRORRHAGIA†\*

### *A New Method of Treatment*

ROBERT B. GREENBLATT, M.D.

RICHARD TORPIN, M.D.

*Augusta*

In presenting a new method of treatment for meno-metrorrhagia by employing blood from lactating amenorrheic women, we are mindful of the many spontaneous recoveries that are encountered in any investigation of this sort. Such recoveries are frequently heralded as therapeutic triumphs. We also take cognizance of the many proposed methods of treatment already in vogue. Their number is legion and that very fact implies that no one of them is uniformly satisfactory in the treatment of functional uterine bleeding. <sup>123456</sup> Correction of body weight, basal metabolism and dietary indiscretions, such as low protein or vitamin intake, are measures that often prove curative. In spite of this, the treatment of meno-metrorrhagia remains the *bête noir* of the gynecologist. Should young women be subjected to surgical castration, it would represent the height of folly. Radium therapy, brilliant as its results may be, often proves an unwieldy weapon, for the dosage is not always predictable; castration with its unhappy consequences frequently results. Hysterectomy represents the ultimate in "defaitisme" and as such ever rears up in scornful challenge.

Chart 1 exemplifies a typical case-study of one of the many patients treated at the University Endocrine Clinic for meno-metrorrhagia. Suction curettage is performed whenever deemed advisable to obviate any criticism that curettage in itself is the curative factor. With the resumption of more or less cyclic menstruation suction curettages are done whenever possible within 12 hours after onset to study the endometrial pattern from which bleeding took place.

*Case 1* is a white female, aged 18, weight 85 lbs., with a history of metrorrhagia of 4 months' duration. She was treated by intramuscular injection of 40 cc. of whole blood from a lactating amenorrheic woman on Dec. 2, 1938 and again with 15 cc. on Jan. 19, 1939.

†From the Departments of Gynecology and Pathology of the University of Georgia School of Medicine, Augusta.

\*Preliminary report to the Richmond County Medical Society, Augusta, Dec. 15, 1938.



Suction curettages were performed on Nov. 22, 1938, Jan. 19, and Apr. 3, 1939. Resumption of more or less cyclic bleeding occurred after therapy. The well being of the patient is greatly improved. Her weight now is 89 lbs. It is interesting to note that the persistent estrogenic endometrium from which bleeding took place finally matured to a progestational type.

## ENDOCRINE CLINIC

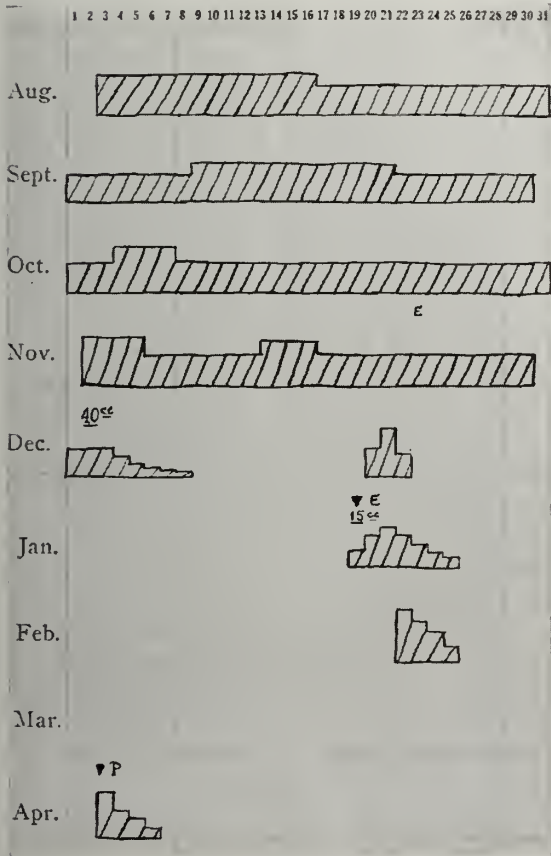
### DATE

Graph signifies amount of bleeding:

Lower row—Normal bleeding

Center row—Moderate bleeding

Upper row—Profuse bleeding



Legends for Endometrial Studies

- ▲ = D & C
- ▼ = Suction Curettage
- E = hypoestrogenic or atrophic
- E = persistent estrogenic
- E+ = hyperestrogenic or hyperplastic
- Ps. = presecretory
- P = secretory or progestational
- M = mixed or irregularly ripened

### Summary

Several patients with meno-metrorrhagia were treated successfully as ambulatory clinic cases. Treatment consisted of several intra-muscular injections of 15 to 40 cc. of blood from lactating amenorrheic women. Further studies to explain the rationale of this procedure are under way.

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### NEWS ITEMS

DR. M. E. GROOVER, Quitman, Brooks county health commissioner, spoke before a recent meeting of the Thomas County Medical Society at Thomasville, on an unusual case in local medical records and showed illustrations to demonstrate the stages of illness. Dr. J. R. Paulk, Moultrie, was one among other speakers.

DR. JOSEPH H. BRADFIELD, Atlanta, medical director, Battle Hill Sanatorium, began his twenty-fifth year as medical director of the Sanatorium on July 1. Dr. Bradfield has made an enviable record and his friends take great pride in pointing to the success of his work.

DR. AND MRS. TOM F. LITTLE, Tifton, entertained members of the Tift County Medical Society and their wives in their home on July 4. Guests from other counties included Dr. Roy Hill and Dr. Rudolph Bell, both of Thomasville.

THE SIXTH DISTRICT MEDICAL SOCIETY will meet in Macon on December 6.

THE SOUTHWEST GEORGIA PUBLIC HEALTH ASSOCIATION met at the Quitman Country Club on July 13.

THE SOUTHEAST GEORGIA PUBLIC HEALTH ASSOCIATION met at Savannah Beach on July 10.

DR. SEALE HARRIS, Birmingham, Ala., and Dr. Tom D. Spies, Cincinnati, Ohio, were honored by the Jefferson County Medical Society, Birmingham, Ala., July 7. Dr. M. S. Davie, Dothan, Ala., presented a scroll to Dr. Harris; and Dr. M. Y. Dabney, Birmingham, presented a scroll to Dr. Spies. Dr. Spies spoke on the *Treatment of Pellagra*; Dr. Harris spoke on *Hyperinsulinism and Its Symptoms*.

DR. HULETT H. ASKEW announces the association of Dr. Rufus A. Askew in the practice of medicine and surgery. Suite 915 Candler Building, Atlanta.

DR. O. D. HALL, Atlanta, announces that he has resumed practice at the Georgia Baptist Hospital since he recovered from a recent illness.

DR. JACK M. LEVIN announces the removal of his office from Suite 915 Candler Building to Suite 402 Candler Building, Atlanta. His practice will be limited to medicine and general surgery.

DR. KENNETH C. WALDEN and the staff of the A. C. L. hospital, Waycross, were hosts to members of the Ware County Medical Society July 5.

THE BOARD OF TRUSTEES of the Fulton County Medical Society (Atlanta) has mailed to its members copies of a pamphlet entitled, *On the Witness Stand*—

*The Facts About Health Insurance*, written by J. Weston Walch, Portland, Maine, general manager, Platform News Publishing Company. This is the Second Edition, contains 64 pages, price ten cents. The pamphlet contains many interesting questions and answers, some of the questions are: "Why not call any new proposal for the payment of medical bills 'Health Insurance'? What is socialized medicine? What are some of the more common plans or types of socialized medicine? What is state medicine? What is meant by group health associations? What is meant by group hospitalization? Has the government itself officially taken a hand in this matter? Is the practice of medicine trade and commerce (don't laugh)? What was the real purpose of the prosecution (of the A. M. A.)? Is there an organized effort to 'smear' the medical profession? (The answer to this question is 'Yes' and is pleasantly elucidated). What has the doctor done to deserve these attacks?" In addition to the few questions quoted here, there are many, many more equally as interesting which may be used for most excellent purposes by the medical profession. The Fulton County Medical Society attached a form letter to each pamphlet. Copy of the first paragraph of the letter follows: "The Public Relations Bureau of the Medical Society of the State of New York (2 East 103rd Street, New York City) has been very aggressive in its fight against state medicine. They caused to be printed a very informative booklet entitled 'On the Witness Stand' which gives as it says 'the facts about health insurance'." The Board of Trustees of the Fulton County Medical Society was so impressed with the booklet that a motion was made that a copy be mailed each member of the Society to his home so that both he and his wife might have the opportunity of becoming familiar with this question.

THE FIRST DISTRICT MEDICAL SOCIETY met at Hotel DeSoto, Savannah, July 19. Titles of papers on the scientific program were: *Sciatica—Its Cause and Treatment*, Dr. Exum Walker, Atlanta; *Operation for Anal Incontinence—Lantern Slides*, Dr. L. W. Williams, Savannah; *Operation for Fibroid Tumor—Motion Picture in Colors*, Dr. L. J. Hahne and Dr. J. K. Quattlebaum, Savannah; *Some Neurosurgical Consideration of Epilepsy—Lantern Slides*, Dr. James G. Lyerly, Jacksonville, Fla.; *The Value of Sterilization of the Operating Room by Ultraviolet Light*, Dr. Randolph Jones, Jr., and Dr. Donald S. Martin, Durham, N. C., the discussion was led by Dr. E. S. Sanderson, Augusta, and Dr. J. K. Quattlebaum, Savannah; *The Relation of the County Medical Society to the Community*, Dr. William H. Myers, Savannah, President of the Medical Association of Georgia. Officers of the society are: Dr. Lee Howard, Savannah, president; Dr. Cleveland Thompson, Millen, first vice president; Dr. E. Carson Demmond, Savannah, second vice-president; Dr. Charles Usher, Savannah, secretary-treasurer. Personnel of the Program Committee were: Dr. L. J. Hahne, Dr. W. O. Bedingfield and Dr. D. J. McCarthy, all of Savannah; Entertainment Committee—Dr. Robert Drane, Dr. H. H. McGee and Dr. L. B. Dunn. Invocation by Rev. Arthur Jackson, pastor of First Baptist church, Savannah; Address of Welcome, Dr. C. F. Holton, Savannah; Response to Address of Welcome, Dr. Cleveland Thompson, Millen.

THE AMERICAN MEDICAL ASSOCIATION is now compiling data for the Sixteenth Edition of the American Medical Directory. Like former editions of the directory, it will contain in condensed form an almost innumerable supply of information concerning physicians, hospitals and medical schools of the United States, also medical practice acts of all the states. In addition to the U. S., it contains like information for Alaska, Canal Zone and Panama, Hawaii, Philippine Islands, Puerto Rico, and the Dominion of Canada.

THE THOMASVILLE PRESS has published an editorial in which the work of Dr. Herbert F. Readling, Thomas County Commissioner of Health, is commended for the excellent work and the extensive health program being conducted. Part of one paragraph is quoted as follows: "The Thomas County Health Department, under Dr. Herbert Readling, is giving the citizens of this county services that were unthought of a few years ago, although there has been no appreciable increase in the department's budget. As a result, the still-birth rate in Thomas county has dropped 50 per cent over previous years, infant mortality is decreasing, and general health conditions are improving." It was stated that more than 500 persons visit the health office each week. Among others who frequent the office are expectant mothers; domestic servants who are sent by their employers to see if they are free from venereal diseases; carefree youngsters to take typhoid vaccination; tuberculous patients; and numerous others who are eager to be protected from the ravages of diseases.

THE HEADQUARTERS for the Health Center Clinics, Savannah, have been moved from Charlton Street to 212 East Bay Street. Dr. John S. Howkins and Dr. Ruskin King conducted the first clinic in the new quarters.

AT THE CLOSE of the annual meeting of the Chattahoochee Valley Medical Association held at Radium Springs, Albany, July 13, the following officers were elected: Dr. M. Y. Dabney, Birmingham, Ala., president; Dr. C. E. Royce, Jacksonville, Fla., first vice president; Dr. B. T. Beasley, Atlanta, second vice president. Dr. Frank K. Boland, Atlanta, is secretary-treasurer. He was elected for a five year term.

CLINICS for pre-school children who expect to enter school in September were held at the following places in Bartow county during the week beginning July 17: Folsom, Adairsville, Cartersville, Euahlee, Kingston, Taylorsville, Stilesboro, and White.

A PRE-SCHOOL CHILD HEALTH CLINIC was held at Eatonton July 14. The clinic was sponsored by the Parent-Teacher Association. The examinations were made by Dr. E. F. Griffith, Eatonton.

DR. J. H. CAMPBELL, Commerce, spoke at the meeting of the Jackson-Barrow County Medical Society held at the Harrison Hotel, Jefferson, July 11 on *Diseases of the Nose and Throat*.

DR. O. W. JENKINS and Dr. W. B. Quillian, Cartersville, spoke at recent meetings of the Cartersville Business and Professional Women's Clubs. They discussed control of tuberculosis and syphilis.

THE WARE COUNTY MEDICAL SOCIETY met at the Phoenix Hotel, Waycross, August 2. Dr. A. W. De-

Loach and Dr. C. M. Stephens were hosts to the members at dinner. Dr. H. A. Seaman read a paper entitled, *Treatment of Malignancies of the Breast*.

DR. R. S. BURFORD and Dr. M. E. Winchester, Brunswick, chairman and Glynn county commissioner of health, respectively, have just printed another edition of the Glynn County Board of Health Bulletin. No attempt is made to publish a complete annual report of the activities of the health department but titles of reprints of articles as follow appear in the Bulletin: *Will We Wipe Out Malaria?* by Paul de Kruif published in the June 1938 issue of the Country Gentleman; *Bad Blood Wagon* by Walter Davenport in Collier's, May 27, 1939; and a special issue of the Brunswick Pilot "Tell a far better story of the accomplishments of the work of the Glynn County Board of Health than could possibly be written in any annual report". The Bulletin is showingly illustrated with charts and attractive pictures. Among them are included charts showing the death rate from malaria in 1933 of 40 per 100,000 population to 4 in 1936 and not a single death in 1937-1938; infant mortality rate reduced more than 20 per cent since 1929; still-birth rate reduced more than 50 per cent since 1930; birth rate since 1930 shows a small increase; typhoid fever death rate has been reduced from 21 per 100,000 population in 1932-1933 to 5 in 1935 and no deaths in the years 1936-37-38; tuberculosis death rate has been reduced from 145 per 100,000 population in 1930 to 25 in 1938. Illustrations include pictures of: The Staff of the Glynn County Board of Health; Dr. Winchester, county commissioner of health; Traveling Clinic for Syphilis Eradication; "Plaque presented to Glynn County Board of Health by United States Chamber of Commerce for Outstanding Health Work, 1935"; Spraying ponds in malaria control work; giving a shot; rural clinics in malaria control unit; carrying health to pupils in Negro schools; "Free for Colored People Only", Dr. Leroy Burney, who originated the trailer-clinic idea and sold it to Georgia, taking blood samples in a Negro dance hall; Dr. John C. Hume and a nurse, Miss Ruth Booker, taking blood from a Negro who will learn on the next visit of the clinic if he has bad blood, if he has treatment will be free and will begin at once; "Steady Full Production of Fine White Pulp from Southern Pine"; Butler Island Dairy, "one of the show places in the South".

THE FOURTH DISTRICT MEDICAL SOCIETY met at the City County Hospital, LaGrange, August 8. The program consisted of titles of papers as follow: *Pneumonia Complicated by Pneumococcal Meningitis Treated with Sulfapyradine* by Dr. E. C. Herman, LaGrange; discussion was led by Dr. Hugh Wood, Atlanta. *Goiter Complicated by Other Serious Conditions*, Dr. Kenneth D. Grace, LaGrange; discussion was led by Dr. D. Henry Poer, Atlanta. *Hyperinsulinism Treated by Resection of Pancreas*, Dr. R. P. Morrow, West Point, and Dr. Enoch Callaway, LaGrange; discussion was led by Dr. H. C. Sauls, Atlanta. *Fractures of the Femur*, Dr. J. S. Holder, LaGrange; discussion led by Dr. Thomas P. Goodwyn, Atlanta. Addresses by Dr. William H. Myers, Savannah, and Dr. J. C. Patterson, Cuthbert, president and president-elect of the Association, respectively. Luncheon was served at the High-

land Country Club. Officers of the Society are: Dr. H. J. Copeland, Griffin, president; and Dr. Marvin M. Head, Zebulon, secretary-treasurer.

DR. HAYWARD PHILLIPS, Atlanta, announces that his practice will be limited to all types of anesthesia.

#### OBITUARY

Dr. Henry Homer Jones, Coolidge; member; Emory University School of Medicine, Emory University, 1895; aged 69; died at a Milledgeville hospital on July 7, 1939, after a long illness. He helped to build Sale City and practiced there for 25 years. Dr. Jones with two brothers owned large tracts of farming lands and in later years devoted a great deal of time to his farming interests. He served as councilman and as mayor of Sale City. Surviving him are two sisters, Mrs. Fannie Reese, Preston, and Mrs. G. W. Daniels, Fitzgerald. Rev. S. O. Thomas, Pelham, and Rev. T. Walters, Doerun, officiated at the funeral services conducted at the Methodist church.

Dr. William H. Whitehead, Austell; New York University College of Medicine, New York City, 1876; aged 83; died on July 10, 1939 at his home. He was a native of Indian Springs. He practiced medicine in Cabanis for a number of years, then moved to Atlanta where he practiced for forty-five years. Dr. Whitehead in his declining years moved to Austell. Surviving him are a niece, Mrs. Add Nutt, and a great-nephew, Add Nutt, Jr., both of Jackson. Rev. Carl Adkins officiated at the funeral services. Burial was in Rose Hill cemetery.

Dr. Tully M. Talbot, Valdosta; member; Columbus Medical College, Columbus, Ohio, 1888; aged 80; died in Austin, Texas, July 9, 1939. He was a prominent physician and one of the State's best citizens. Dr. Talbot was a member of the South Georgia Medical Society and the First Baptist church. Dr. T. Baron Gibson officiated at the funeral services conducted from the First Baptist church. The physicians of Valdosta and the Board of Deacons of the First Baptist church formed an honorary escort. Burial was in Sunset Hill cemetery.

Dr. Harvey Dorman Kemper, Jonesboro; member; Atlanta School of Medicine, Atlanta, 1909; aged 60; died at his home on July 14, 1939. He was a native of Owen county, Kentucky and received his collegiate education at Georgetown, Ky. Dr. Kemper began practice at Jewell, then moved to Morrow and practiced there until 1919; then moved to Jonesboro and obtained an extensive practice in Clayton county. He has been physician for Clayton county for almost twenty years. For eleven years and until his death he served as councilman for Jonesboro. He was a beloved citizen of Clayton county, member of the Clayton-Fayette County Medical Society, one time deacon and treasurer of the Jonesboro Baptist church and one of its most loyal members. Surviving him are his widow, three sons, Judge Allen Kemper, ordinary of Clayton county; Houston Kemper, Atlanta; John Kemper, Jonesboro. Rev. C. C. Buckalew officiated at the funeral services conducted at the Jonesboro Baptist church. Burial was in the Jonesboro cemetery.



## FIGHT NOSTRUMS AND QUACKERY

To the Editor:

In a recent conference with Dr. Olin West, a problem of mutual interest to the medical profession and the Federal Government was discussed. It is at the suggestion of Dr. West that I am writing you this letter.

At great hazard not infrequently involving costly and harassing suits for libel the American Medical Association has for many years been conducting a valiant fight against nostrums and quackery. Through these means an invaluable service has been rendered to the profession as a whole, and to every individual member. Various aspects of this service should be obvious to any physician. The Association, however, is without regulatory powers. Through the pages of the *Journal* and otherwise it can expose falsehood and advise against it, but it lacks the authority to specify and enforce the limits beyond which the advertiser of a product may not go in representing to the public the merits of a proprietary preparation.

Fortunately, however, there is an agency clothed with this authority and charged with this responsibility. This is the Federal Trade Commission which has jurisdiction over false and misleading advertising. In this capacity the Federal Trade Commission is the medium through which the ambitions of the medical profession with respect to false advertising can be realized. It is believed, therefore, that the successful accomplishment of this objective should be of vital interest to every member of organized medicine. It is, however, a problem which will require the unreserved support of medical organizations and their constituent membership. Whenever a case is contested it is necessary to introduce competent medical testimony in support of the government's charges. You, as the Secretary of the State Medical Association, know the proper men to whom to appeal within your State, for such assistance. Moreover, an appeal from you is much more direct and personal than such an appeal coming from me or from even the office of the American Medical Association in Chicago.

When hearings are necessary it is the policy of the Federal Trade Commission to schedule the hearing at or near the place where the headquarters of the respondent are located, so that little or no travel will be involved. I am in a position also to assure you that medical witnesses will be treated courteously and that every possible consideration will be given to the conservation of their valuable time, and to other items to suit their convenience. Though it is regretted that the Federal Trade Commission has not been provided with funds with which to pay expert witness fees, it is believed that this problem is of as much concern to the medical profession as it is to the Federal Government, and that physicians in performing this service as acting in the interest of themselves and the profession as a whole.

I will very much appreciate an expression from you as to whether or not you wish to cooperate with me in the manner indicated, if and when the demand for such assistance arises.

K. E. MILLER, *Senior Surgeon*  
U. S. Public Health Service  
Federal Trade Commission.

Washington, D. C.  
July 14, 1939.

HELP FEDERAL TRADE COMMISSION  
BAN NOSTRUMS

To the Editor:

The Federal Trade Commission has for some years been rather active in its efforts to protect the public against harmful and useless nostrums, and in connection with these activities has received aid from officers of constituent state and component county medical societies and from individual members of those societies who have appeared as witnesses before referees of the Federal Trade Commission for the purpose of testifying as to the lack of merit of such nostrums. You have no doubt heard from certain sources that the American Medical Association and its constituent state medical associations have failed to cooperate with the federal government, when as a matter of fact the Association has for many years done everything that it could do to be helpful to any agency of the federal government that has called on it for any assistance that the Association could render, and I have known many instances in which constituent state associations have taken advantage of opportunities that have offered to be helpful to the federal government.

Under the provisions of the new food and drug act certain important new duties have devolved on the Federal Trade Commission and apparently that agency is determined to discharge these duties as fully as possible. It is the intention of the officers and members of the administrative personnel of the American Medical Association to be as helpful as possible to the Federal Trade Commission in connection with this matter, and I bespeak the active assistance of the officers of the constituent state medical associations for the Federal Trade Commission in this connection.

While it is true that this Commission is not provided with funds that will enable the Commission to compensate fully physicians who appear as witnesses at hearings conducted in the several states, I am very sure that the members of the medical profession generally will be glad to do what they can to assist the Commission in restraining violations of the laws pertaining to foods and drugs and to lessening of injurious effects of the production and sale of worthless and harmful nostrums.

Dr. K. E. Miller, Senior Surgeon of the United States Public Health Service, has been detailed to the Federal Trade Commission for the purpose of assisting the Commission in its work pertaining to the matters referred to in this letter. I am very sure that Dr. Miller and the members of the Federal Trade Commission will be grateful for any cooperation that the secretaries of the constituent state medical associations will extend.

OLIN WEST, M.D., *Secretary*  
*American Medical Association.*

Chicago, Ill.  
July 26, 1939.



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## CORRECTIONS

In the paper by Dr. George A. Traylor, Augusta, on "Coronary Occlusion" which appeared on pages 280-283 of the July 1939 issue of *The Journal*, the word "septum" should have been used in the ninth line of the second paragraph on page 281 instead of "sputum." In the fifth line of the second column on page 283, the name "Dr. James R. Redfearn," Albany, should have been "Dr. James A. Redfearn."

In an editorial by Dr. Traylor, "Progress in Cancer Research," published on page 289 of the July 1939 issue of *The Journal* in the twelfth line of the third paragraph (second column) the word "reveal" should have been used instead of the word "restore." In the eighth line of the fourth paragraph, "abortion producing" should have been printed "abortion-producing."

GEORGIA SECTION OF  
THE SOUTHEASTERN SURGICAL CONGRESS  
*Sixth Annual Clinical Conference*

*Stephens County Hospital, Toccoa*  
*Wednesday, September 13, 1939*

## PROGRAM

10:00 A. M., Eastern Standard Time

1. Acute Appendicitis: Dr. J. R. Young, Anderson, S. C., and Dr. H. W. Birdsong, Athens.
2. Cholecystitis: Dr. W. W. Battey, Augusta, and Dr. Stewart D. Brown, Royston.
3. Pelvic Inflammatory Disease: Dr. E. A. Wilcox, Augusta, and Dr. Frank Wells, Atlanta.
4. Nephrolithiasis: Dr. M. A. Hubert, Athens, and Dr. Jas. L. Pittman, Atlanta.
5. Aneurysm, Traumatic: Dr. Geo. A. Traylor, Augusta, and Dr. J. T. McCall, Rome.

## INTERMISSION

Lunch—1:00 to 2:00 o'clock: guests of Dr. and Mrs. Bruce Schaefer for barbecue at Toccoa Falls.

## LUNCHEON SPEAKERS

Dr. William H. Myers, Savannah, president of the Medical Association of Georgia.

Dr. J. C. Patterson, Cuthbert, president-elect of the Medical Association of Georgia.

## AFTERNOON PROGRAM

6. Recurrent Hyperthyroidism: Dr. D. Henry Poer, Atlanta, and Dr. T. C. Davison, Atlanta.
7. Thrombo-Angiitis Obliterans: Dr. Edgar F. Fincher, Atlanta, and Dr. Hugh Cochran, Atlanta.
8. Brain Tumor: Dr. J. Calvin Weaver, Atlanta, and Dr. J. K. Burns, Gainesville.
9. Fractures: Dr. Cleveland Whelchel, Gainesville, and Dr. Joseph H. Boland, Atlanta.

There will be no papers read at the meeting. Clinical cases and reports of cases will be presented and discussed by the invited speakers, followed by a general discussion from the floor.

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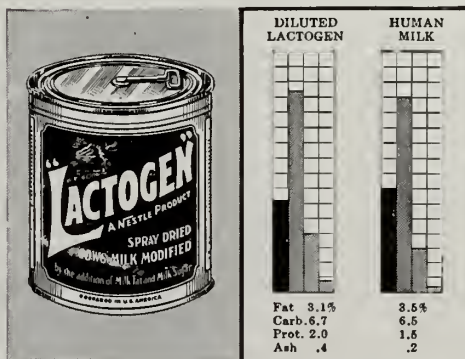
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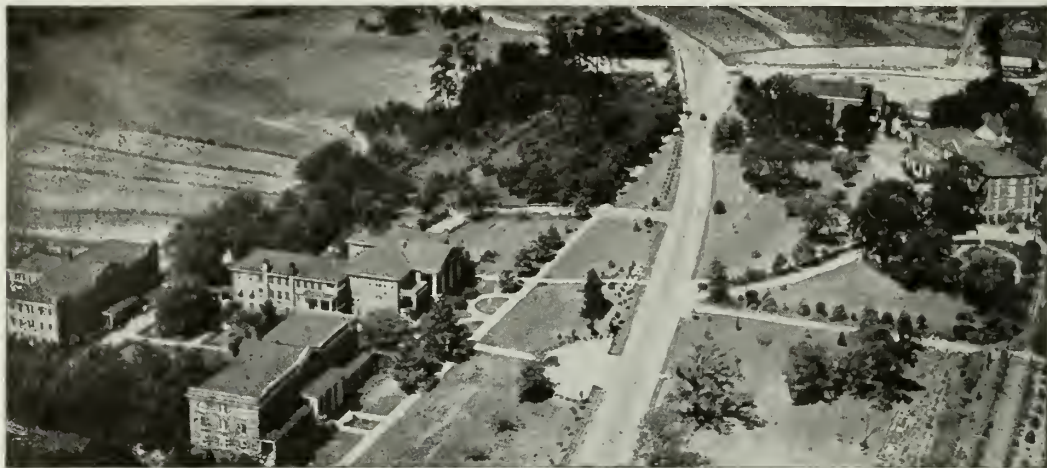
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## SOME PHASES OF MEDICAL ECONOMICS\*

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Nashville, Tenn.

Economics is defined as "the science which investigates the laws governing the production, distribution, and consumption of goods and services." It is also defined as "the science which investigates the means by which individuals, communities, and nations obtain what they want."

There are many other, and more elaborate, definitions of the subject. These, though brief, will suffice to convey the idea that the subject embraces much more than is commonly thought.

It is obvious that the subject embraces much more than the limited subject of finance. In fact, economics existed long before money was used.

One common quality is to be found in most of the definitions. It is to the effect that economics is a *science which investigates*. By implication and by statement the existence of economic law is recognized in most of the definitions.

An economist, therefore, is a person who seeks to find the laws of economics.

The relationship of an economist to the science of economics differs, in no essential particular, from the relationship which exists between a biologist and the science of biology. A biologist seeks to find the laws which govern life. When he finds such a law the discovery may be of great value to the human race. Its value is determined by many factors, such for example as the importance of the law itself, and the capacity and willingness of people to adapt themselves to its provisions.

The biologist arrives at his knowledge of biologic law, mainly, in two ways. First he observes the phenomena of life and from these observations makes deductions. In addition he conducts experiments to prove or disprove the accuracy of his deductions. By these methods the biologist finds the answers to many biologic questions.

The economist, likewise, observes the phenomena which take place in the field of economics. He, too, may discover an economic law and this discovery may be of great value. The value of this discovery depends again upon the ability and disposition of people to adapt themselves to its provisions.

Unfortunately, the accuracy of the deductions of an economist cannot be subjected to test by laboratory procedures. The only test of their accuracy is the test of experience.

Biologic laws were made by the Creator of life. Economic laws are made by the interplay of innumerable factors.

A few of the factors which play a part in making economic law are the following: All the attributes of human nature which make human beings what they are; their loves, their hates, their ambition and their lack of it, their generosity, their greed, their ability and skill and their lack of it, their religion, their traditions, their habits and customs, their prejudices, their conceit, their honesty and their dishonesty, their disposition to sacrifice for what they want, and their indisposition to sacrifice, their form of government and the powers vested in it, weather conditions, seasons, the soil and its productiveness, the caprice of statesmen, the political philosophy which pervades the minds of the people at the moment. These are a few of the factors which play a part in making an economic law.

It is obvious, of course, that legislative bodies cannot make an economic law any more than a biologist can make a biologic law. Legislative bodies may enact a law

\*Address before the Medical Association of Georgia, Atlanta, April 26, 1939.

†Editor of the Journal of the Tennessee State Medical Association and Secretary of the Tennessee State Medical Association. Invited guest.



which profoundly effects the economic life of a community or a nation, but in reality they do not enact an economic law at all, it is only a factor in the production of an economic law.

A levy or a dam may alter the course of a stream of water but that does not alter the law of gravitation.

A legislative act may be beneficial to the economy or it may be very harmful. Again, the immediate effects of such an act may be wholesome and the remote effect upon the economic life of the community very disastrous. The ultimate effects of such a statute cannot be determined in advance, even by the author, for the simple reason that no one can determine in advance what the human reactions to the law will be until it has been in effect for a while, and in some instances for a long time.

The biologist never has got so far out of bounds as to assume that he can make a biologic law. If he should assume such power the effect would be harmless, for the reason that the very existence of the rash assumption, on his part, would be adequate proof to the rest of us that he has become very visionary.

Unfortunately this is not true of the economist. It seems that some of them still act on the assumption that they can make an economic law. They seem disposed to act on the assumption that they can collect some statistical data, and on such a foundation erect a statue of economic law.

We do not fail to recognize and appreciate the importance and value of the economist who retains the proper perspective. Nor do we fail to appreciate the mischief which might be done by a pseudo-economist.

Let us consider for a moment how an economist may make himself of great usefulness. In order to make our studies as brief as possible we will consider his activities in considering the economic factors involved in the production, distribution, and consumption of one single item of manufacture, namely, men's shirts.

He would of necessity consider the origin and production of raw materials. He would study the quality of fibers which go into the yarns. He would study the production of cloth. He would study the quality of the shirting produced from different raw ma-

terials and from different methods of production, and the cost of production all along the line. He would study the question of style and design, also the matter of dyes.

It would be necessary, of course, for him to study the matter of taste on the part of the people who buy shirts, and their demand for various styles of shirts. He would also consider the ability of people to buy shirts and their disposition to buy shirts.

After studying these and other factors thoroughly he should be in position to draw practical conclusions and give advice of value to the shirt trade.

Now let us consider for a moment the procedure of the pseudo-economist who has a different concept of his relationship to the laws of economics. He compiles some information of a statistical nature on the costs involved in the production of shirts, the cost of distribution of selling, etc.

He reaches the conclusion that there is a considerable waste in the present methods employed in the production and distribution of shirts. He also compiles figures which indicate that a fair percentage of the people do not possess an adequate supply of shirts.

He advances the theory that if some autocratic power were set up over the shirt trade great savings could be effected, and a better distribution of shirts accomplished.

Let us further assume that he agitates the question through the common avenues of propaganda. He becomes an economic crusader. He makes a legislative proposal to the effect that a government agency be created to exercise control over the production, distribution, and consumption of shirts. He proposes that the government agency be called a shirt board, and that it be composed of an economist, a health authority, a welfare worker, a shirt manufacturer, a retailer, a dye expert, a designer, a propagandist, and someone to represent the consumer group.

The shirt board, in order to accomplish its purpose, immediately decrees that all shirts shall be of one design and one color. A variation in the thickness of shirts is permitted to correspond with the seasons and latitudes of our country.

When viewed in one way, these are not illogical suggestions.

Think for a moment of the economics which might be effected. A few manufac-

turers could produce all the shirting needed. The shirting could be standardized. In fact, an expert could standardize the tensile strength of the threads which go into the production of shirting. An expert could give us one fadeless dye. The work of the retailer would be very much simplified. The only concern of the retailer and purchaser would be the matter of size. The effort of shopping would be simplified. There would be no shirt sales put on from time to time to move out-dated stock. There need be no expensive advertising of shirts. All men would look alike. There would be a degree of uniformity in dress.

It must be obvious that the cost of shirts could be reduced considerably by such a step, and possibly an increased distribution of shirts would be also accomplished.

But there is another factor in economics which this economist has not considered. The other factor is this: Would the welfare and happiness of the people be promoted by such an accomplishment? The answer, in my opinion, is a very emphatic *no*.

Think for a moment of what would happen if all of us were compelled to wear shirts of one color—say brown. Think for a moment of what would happen if men were deprived of the liberty of choosing the color of the shirt they wear. Think for a moment, if you dare, what would happen if such regulations were adopted to govern women's hats.

The big economic question so often ignored by present day socially - minded pseudo-economists is this: Will the happiness and well being of the people, as a whole, be improved? They seem to see the welfare and happiness of people through the eyes of their own illusions.

In this brief discussion I hope a few points are made clear. It must be apparent that the subject of economics embraces much more than the limited subject of finance. It is apparent also that the successful cross-roads merchant may know much more about the subject of economics than the college trained economist who has had none of the practical experience of the cross-roads merchant. The reason is that the cross-roads merchant is in the only laboratory of economics that exists. He has paid for his mistakes too.

I hope it is apparent also that we must not be led astray by the economic philosophies of

those who have never operated in the field of economics except on the campus of an endowed institution.

### *Medical Economics*

With these few introductory remarks we are now ready to take up some phases of medical economics.

Medical economics is but a phase of economics. It has to do with the production and delivery of medical care, including the prevention of disease.

Its consideration should be approached from three points of view. First, that of the patient; second, the point of view of those who take care of the patients; and third, the point of view of the public interest.

What is the point of view of the patient? What are his ideas concerning medical care, its quality, the conditions under which it is obtained, etc.?

These are all vital questions at the moment.

It is my opinion that the average American citizen wishes to obtain his own medical care. He wishes the freedom of choosing the physician who enters his home as a physician. He wishes to exercise the liberty of deciding as to whether or not he accepts the professional advice given. He wishes the liberty of deciding who is to operate in case a hazardous operation is advised. In brief he wishes to be boss in his own house. He wishes these services under these conditions at a price he can afford to pay.

This, in my opinion, is a fair statement of the attitude of the average American citizen on the question of medical economics.

What is the attitude of the medical profession on this same question? The answer, in my opinion, is this: The attitude of the medical profession differs in no essential particular from the attitude of the average American citizen. Our system of medical practice in this country has been built up around those same ideas. We have a record which touches all these points. Our attitude has been expressed by official actions of organized bodies and by the daily practices of physicians throughout the country.

We long ago adopted a code of ethical principles. Among these are to be found the following:

First, the principle of free choice of a physician. This principle relates to the right of the patient to select his doctor. It was not

written as a benefit to doctors. It was written for the purpose of preserving to the sick person his complete freedom in the selection of his doctor and determining whether or not he accepts the treatment prescribed.

Second, we wrote into the code the principle which prohibits a doctor from reaping a profit from a patent on a new discovery or procedure. This was not written for the benefit of doctors. It was written for the benefit of sick humanity. Its adoption was motivated by a desire to make available to all sick people everywhere any advancement in medicine without the necessity of paying the patentee a royalty.

Third, we wrote into the code the principle which binds a doctor to regard as sacred the secrets of patients revealed to him for the purpose of making a diagnosis.

Fourth, we wrote into the code the principle which obliges a doctor to render service willingly to the destitute without pay.

Fifth, we also wrote into the code the principle which enjoins upon doctors the duty of charging fees in proportion to the services rendered and the ability of the patient to pay.

These citations will suffice to indicate that not one single principle in the code was written with the idea of creating a monopoly of medical practice, in the interest of the medical profession, and to the detriment of sick people.

I submit that these principles in the code are observed today by practitioners with as much fidelity as the creed of most churches, not to mention the laws of the land.

What has been our attitude on the question of public welfare? The public interest, of course, extends itself to the indigent patient. We have said to the public in every city where a charity hospital exists: "If you will give us a hospital in which to take care of indigent patients, we will give our professional services without pay." It is estimated that we give about a million dollars' worth of service per day. Not only have we given service, we have led in movements to create these institutions financed out of tax monies.

On this basis the indigent people of this country have received, and do receive, the best care to be had in the world, and the burden of taxation, for the maintenance of such service, has been kept at a minimum.

The public interest very naturally is concerned with the matter of public health.

What is the attitude of the medical profession toward public health? The answer is that we have been in the forefront of every fight for the creation of public health departments, properly financed and equipped to perform their proper functions.

We have led in these fights because many conditions which produce illness cannot be dealt with by individual citizens and individual doctors. The use of the police power of the state vested in an executive department of the government is essential to the promotion of health by correcting conditions.

There is confusion in the minds of lay people, and some members of the medical profession, with regard to the functions of a public health department.

It is perfectly obvious that they were created to use the police powers vested in them in correcting the conditions which require the use of executive force. An individual cannot quarantine another. A public health authority can. An individual cannot enforce a sanitary regulation. A public health authority can. The individual cannot enforce sanitary regulations for the prevention of typhoid fever. A public health authority can. An individual may accomplish a degree of protection by obtaining from his physician a prophylactic inoculation. *A public health problem, therefore, is one which requires the use of executive force to accomplish its correction.* An individual health problem is one which is amenable to individual effort. That is the definition of the function of a public health department. That is the differentiation between public health and individual health.

It is obvious that these departments were never created and endowed with these powers for the purpose of administering individual medical care. They were never intended to be, or to become, medical charity agencies.

An individual medical problem, in an individual citizen, is an individual medical problem regardless of whether the individual is indigent or not indigent. If the individual is indigent then the problem is one of *medical indigency*. It is not a public health problem because of *indigency*.

One observes a disposition on the part of some lay people to charge public health departments with the performance of duties



which do not come within their proper sphere of activity. One occasionally observes a disposition on the part of some public health authorities to neglect the performance of the duties for which they were created, and assume the performance of duties for which they were not created. Occasionally it happens that when we doctors oppose such *mal-administration* the false charge is made that we are opposed to public health, when nothing is further from the truth.

There is also public interest in the form of government under which we live.

It must be apparent that all of the policies of the organized profession above referred to, and all the practices of the medical profession alluded to, are in complete conformity with our ideas of democracy. They conform to the definition of Americanism as expressed in the Declaration of Independence. You may not remember it. It is as follows: "We hold these truths to be self-evident: That all men are created equal; That they are endowed by their Creator with certain inalienable rights; That among these are: Life, Liberty, and the pursuit of Happiness: That to secure these rights, Governments are instituted among men."

On such a concept of individual liberty our medical policies have been formulated. We have considered, not *just one*, but all the elements which go to make up the sum total of human welfare and happiness. We are not unmindful of the fact that without liberty there can be *no genuine welfare*.

We doctors are thoroughly familiar with the fact that the number of individuals who cannot pay for medical care has increased enormously in the last few years. We are also well aware of the fact that the cost of delivering modern medical care to these people has increased, and that the value of present day medical care has increased in proportion to its increase in cost. These conditions have placed us in a very difficult economic position. Notwithstanding these difficulties, we have not been disposed to sell the liberties and the interests of our patients to some greedy bureaucracy, in exchange for a mess of political pot-tage for ourselves.

We have never opposed the proper use of tax money to finance the medical care of indigent persons. We are, however, opposed to the administration of tax money for medical

care on such a basis that the patient and the doctor, *both*, are placed under the domination of some bureaucratic agency.

Please bear in mind constantly the fact that the financing of medical care is one thing and the administration of medical care is another thing, just as the financing of a trip on a railroad is one thing and the administration of a railroad is another thing.

Some of you will remember that the doctors of Tennessee last year adopted a proposal for the financing of medical care of indigent persons by the government. It was presented to the extraordinary session of the House of Delegates of the American Medical Association of last September and published in the A. M. A. Journal for September 24.

This proposal takes into account the fact that the cost of medical care has increased for the reason that more expensive medical care is delivered. It takes into account also the fact that an increased number of people are unable to finance this more expensive medical care out of their own pockets. *It attempts to show that there is no necessity for the sacrifice of freedom on the part of patients and doctors in order to enable taxpayers to participate in defraying the cost of medical care to those unable to pay for it.*

The basic provisions in this proposal are these: (1) Indigency is defined in simple language. (2) The indigent citizen is registered in his community. (3) Those persons who are registered are furnished a certificate of registration to which is attached a statement authorizing doctors and hospitals to give them medical care at the expense of the government. (4) The fees for these services are to be fixed by a board representing the taxpayers, not doctors. It provides also for a local administrative agency to pass upon two questions of logical concern to the taxpayers. First, does the patient need medical care? And second, has he received adequate care? If these conditions are met the bills for services, which conform to the schedule, may be approved for payment.

The intention back of this proposal was the creation of a means by which the taxpayers may aid in financing the medical care of indigent citizens, under the existing system of practice, in existing institutions, without subjecting the patient and the doctor to bureaucratic domination.

Under this proposal the public interest in the indigent person is expressed directly from the government to the indigent person. This feature is in marked contrast to most of the proposals that have been made. Most of them provide that the public interest pass from the government down through numerous administrative agencies, to finally reach the needy individual after a series of bosses have had a say as to what is to be done.

In recent years another phase of medical economics has come into being. It may be designated *politico-medical economics*.

The matter of government interference in medical care has been agitated for a number of years, but in 1936 it began to take on a much more definite form. In that year a lay writer for the Forum and Century magazine wrote an article entitled "Medicine's Horse and Buggy," in which he said, "Today with Thomas Parran, Jr., as surgeon general and Josephine Roche as the treasury department's secretary for health, we may confidently expect *continued pressure* both from within and from without the government toward the reorganization of the health services."

This author seemed to speak "as one having knowledge." The accuracy of his prediction became more apparent when Miss Josephine Roche made an address before a special session of the American Public Health Association in 1937. Her address was entitled "Medical Care as a Public Health Function." In this address she proposed, in effect, that individual medical care be made a function of public health departments. Thus we learned that continued pressure was being made, both from within and without the government, toward the reorganization of health services. Thus we were made acquainted, to some extent, with the direction the pressure was being exerted. This proposal in effect means that health departments take over the care of sick people to whatever extent they may see fit.

This proposal, if adopted and carried to its logical conclusion, means the introduction of communistic medicine into this country through the doors of public health departments. It can mean no less.

Those who participated in planning this *pressure* found it necessary to establish in the minds of the public some basis for such exer-

tions. There had to be a build up. They, of course, looked over the statistics on death rates of the United States, and found that they have been declining steadily for many years. They found the death rate of the United States, for recent years, to be very low in comparison with other countries. They found the rates from many preventable causes to have almost vanished and others on a rapid decline. These facts, of course, did not furnish a basis for the pressure that was predicted and planned and being exerted. These figures reflect evidence of very efficient medical care in this country. It was, therefore, necessary to find justification for pressure in some other way.

A survey of medical care was made. It is not my purpose to discuss, in any detail, this remarkable piece of work.

It is a fact, however, that the results of this survey have been made the basis for continuing pressure for radical change. It is quoted on all occasions.

This survey does not stand up, under critical analysis, very handsomely, however.

The data were obtained by sending white collar W.P.A. workers to the homes of people in certain selected areas for the purpose of making inquiry concerning illness and medical care. It appears that two main questions were asked: First, did you suffer from a *serious disabling illness* in the year 1936? If the question was answered in the affirmative then the next question was, "did you have medical care?" If the answer was "no," that answer was put down on a slip of paper and became the basis for the final tabulation showing the extent of *serious disabling illnesses* in this country, without medical care.

I submit to you that there is not a government bureau, either state or national, that would pay out a sick benefit on the basis of such evidence of illness.

There is not an insurance company in the United States that would pay out a sick benefit on the basis of such evidence of illness.

There is hardly a school teacher in the United States who would excuse a child from school, for very long, on such evidence of illness without a report from a truant officer.

Notwithstanding all this, these figures stand as evidence of a very deficient medical

care. *They are the basis for the pressure for radical change.*

It must be remembered that figures as to deaths are much more accurate than figures as to illness. One reason for this is that you cannot very well *fake* a funeral. One can fake an illness without much difficulty, and one can easily magnify its severity.

At any rate, the figures showed that 30 per cent of people on relief rolls and 28 per cent of those just above the relief level received no medical care when suffering from serious disabling illness, and 17 per cent of all other citizens in these selected communities had no medical care when suffering from serious disabling illness.

It will be noted that the authors of these reports emphasized the negative. They failed to mention the positive answers as to medical care received. The positive side of the data tell an interesting story, if dependable. They show that 70 per cent of the people though on relief and 72 per cent of those just above the relief level did receive medical care when suffering from serious disabling illness, as contrasted with 83 per cent of all the other people in these communities with independent incomes.

The medical profession receives no credit for the fact that medical care was given all these people and, in the main, without hope of reward.

The report does not take into account the fact that there are many people who do not want medical care when ill. For example, Christian Scientists and others, for one reason or another. These figures, in spite of those defects, have served their purpose well. They have had a tremendous play in the press.

The pressure took on a more definite form last July. It was in the nature of a proposal which was designated "The National Health Program." Lately it has been slightly modified and embodied into a bill which has been introduced in the Congress by Senator Wagner of New York.

I shall not attempt an extensive analysis of this bill. Some of its provisions deserve special attention, however. In brief, it provides for the appropriation of large sums of money to be administered by several different departments and bureaus in Washington. The departments and bureaus are charged with the

duty of allocating these monies to states for various projects in the field of public health and medical care and on various bases.

These several departments are given some very extraordinary powers. They are vested with the power to make regulations affecting the allocation of funds. They have the power to approve or disapprove the plans made by states. They are vested also with the power to withdraw financial support from a state if, in the opinion of the bureau, the state fails to conform to all the regulations made by the departments and so on.

Under the provisions of this bill the interests of the public in the medical care of indigent persons and others are expressed through the government, but the interest passes downward from the Congress through numerous agencies before the person to be benefited is ever reached. In addition each agency is vested with powers which may be exercised over the patient and the doctor.

On first glance at this legislation one is led to wonder which was uppermost in the minds of its sponsors, the powers and money provided for, or the medical needs of the people.

One can hardly imagine a more ideal set-up for the exertion of political power.

It might be well for us to bear in mind at this moment that a Russian political leader, now dead, suggested to his followers in the United States that they establish communism over here by degrees and not by revolution.

It is worthy of our attention also that the Communist Party of New York State has given its endorsement to this national health program.

The issue before the American people on this question of medical care is not what many people are led to believe. There are those who would have the people believe that the issue is one of *welfare and that we doctors are opposed to welfare.*

The issue is not so simple as that. In its final analysis the issue is: Shall patients and doctors retain their *freedom of judgment* in this matter of medical care, or shall this *freedom* be surrendered to some government agency?

That is the definition of the issue that the people should understand before they express their opinions finally by a poll, or by an act of Congress.



The record shows that we doctors have been mindful of the welfare of humanity; that we have contributed to welfare at a sacrifice, and never opposed genuine welfare.

We have been mindful of our obligations as a profession to the people, to the government, and to the science of medicine; its past and its future.

We have been mindful of life. Yes, but we have been mindful, also, of the attributes which give flavor and purpose to living. Being thus mindful, let us utter again the immortal prayer of Kipling: "Lord God of hosts, be with us yet, lest we forget, lest we forget."

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### THE SOCIAL AND ECONOMIC VALUE OF HEALTH\*

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HON. ROBERT F. MADDUX,<sup>†</sup> *Chairman*  
*State Board of Health*  
*Atlanta*

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I appreciate very much the compliment of being invited to speak to the members of the Medical Association of Georgia and the opportunity of expressing my very great appreciation for the fine cooperation given to me as Chairman and to the members of our State Board of Health, our splendid Director, Dr. Abercrombie, and his capable staff.

The successful operation of the Department of Public Health is due in no small measure to the friendly interest and cooperation given by the members of your organization. Some of you older members may recall that several years ago we did not have this friendly cooperation, but I believe now every physician in Georgia realizes that the Department is doing its best to improve the health condition of our people without in any way infringing upon the ethics of your profession.

As you may know, in 1875 the Legislature passed an act creating the first State Board of Health and made a small appropriation for its operation. Strange to say, no appropriation was made to the State Board of Health for continuing its work in 1877, and it ceased to function.

The second Board of Health was not organized until September 18, 1903, under an act of the Legislature, and an appropriation of \$3,000 for its maintenance was made. In the 35 years since that time, the work of the Department has made slow but steady progress, and I really think accomplished a great deal with the very small appropriations made by the Legislature for this important service. Since its organization, the Department has had but two Directors, Dr. Harris serving for 14 years, and Dr. Abercrombie for the last 22 years.

When I first became associated with the Board in 1913, the appropriation for public health work was only \$30,000, or about 1 cent per capita. It was 25 years after the organization of the Board before the Legislature appropriated as much as \$100,000 for this work, only 3 cents per capita, and the highest appropriation made until 1937 was \$165,000. In 1937 the appropriation was raised to \$500,000 under Governor Rivers' administration and due largely to his active interest in broadening the work of the Department of Public Health.

You are all familiar with the work which has recently been accomplished and have seen the steady increase in the interest in our efforts and the friendly cooperation the Department has received from your organization, the Georgia Dental Association, the public, the radio, and the press of the State. I think you will agree the people in Georgia and throughout the country are more health-minded today than ever before.

Under the able administration of our Director, Dr. Abercrombie, through the increase of the appropriation made by the Legislature, and together with Federal aid, we have launched throughout the State a broad program and the battle against disease is being waged on many fronts. It is encouraging to find a steadily decreasing mortality rate, amounting to 5.6 per cent last year. There were 62,468 births and 32,733 deaths registered, a death rate of 10.66 per 100,000. It is also interesting to know that during 1938 Georgia had the lowest typhoid fever death rate ever recorded, the lowest death rate from malaria in the history of the State, and established a new all-time record for decrease in the diphtheria death rate. There was a consid-

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\*Address before the Medical Association of Georgia, Atlanta, April 26, 1939.

<sup>†</sup>Invited guest.

erable decline in the death rate of typhus fever and a further decline in the tuberculosis death rate. There was also a decrease in the number of deaths from syphilis, and pneumonia deaths declined 14 per cent. All of these and many other reductions were made through a broader education of our people in the prevention of disease and through your able cooperation.

While we are gratified at the progress we have made, we realize there is much yet to be done. It is estimated in Georgia we have approximately 3,000 doctors more or less in active practice; this means there is one doctor to each 1,000 of our population. This would probably provide ample service to our people, but unfortunately the doctors are not evenly distributed. They are largely centered in the cities, and many counties have but few doctors and some have none.

While we have made every effort to have the counties appoint full time health officers—which was made available to the counties under the Ellis Health Law passed several years ago—I am sorry to say we now have only 54 counties having full time health departments, and while these counties are rendering health service to 1,777,129 persons, there are nearly a million and a half of our population in counties which do not render this service. We have endeavored to extend the public health nursing service over the State, and on January 1, 1939 there were 178 public health nurses covering practically every county in the State; and while the work of these nurses is necessarily limited owing to the territory they have to cover, they are rendering a valuable service to our people in connection with child hygiene, communicable disease control, tuberculosis control, venereal disease control, and health education. It is interesting to know that mid-wives attended 36.6 per cent of all live births in the State last year. This means that more than 22,000 babies were born in Georgia without the attendance of a physician, and there are now in Georgia more certified mid-wives than medical men.

I could discuss more in detail the many activities of our Department, but I am sure you are familiar with the work we are doing along the lines of county health work, dental health education, epidemiology, the rapid increase in the work of our laboratories which

last year handled 355,514 specimens—an increase of 101,361 or 39.9 per cent over 1937. You are also familiar with the work we are doing to reduce the incidence of malaria, the fine work in maternal and child hygiene, public health education, sanitary engineering and tuberculosis control, but I will not take your time in going further into these operations.

We are now building an addition to the Alto Sanatorium at a cost of nearly \$400,000 through funds derived from the proceeds of the sale of the W. & A. warrants and Federal funds through the P.W.A. This will add about 200 beds to the capacity of this fine institution which has done a splendid work since the present building was erected in 1926 at a cost of \$500,000, but there are still in Georgia several thousand people suffering from tuberculosis without the proper care and treatment. Unfortunately, the Legislature adjourned without making any appropriation for the operation of this new addition which will be completed the latter part of this year. It is also unfortunate that the appropriation of \$240,000 for the operation of the present institution has been greatly reduced on account of lack of funds in the State Treasury, which in turn will necessarily reduce its services, but we are endeavoring in this matter as we have in all of our operations for several years to live within our appropriation.

You are familiar with the fact that the State appropriated for the public health program \$550,000, but this was also reduced to 56 per cent of the appropriation. The State also appropriated \$50,000 for cancer control, but this fund was likewise reduced to \$33,000. It is interesting in this connection to call your attention to the fact that Georgia was the only state in the South to appropriate any money directly for cancer and one of five states in the United States to make direct appropriation for this important work. We were able, however, to treat nearly 1,000 cases in the several clinics which were established, and it is to be sincerely regretted that this fund was exhausted on December 1 and no appropriation was made for its continuance, especially in view of the fact that we have on hand several hundred applications for treatment and there were 1,867 deaths from cancer last year. This disease is now at-

tracting the attention of the public not only here but throughout the country, and I am glad to say the Field Army for Cancer Control, now endeavoring to raise funds throughout the State for the purpose of educating the people to the importance of early diagnosis, under the able leadership of Mrs. H. B. Ritchie, is meeting statewide cooperation and I am sure is rendering a great service to our people.

The economic and social value of the enlarged public health program in Georgia has been clearly demonstrated and shows that by providing the necessary funds, good health can be bought; and I sincerely hope when our Legislature meets again it will make adequate provision for continuing the advanced program for the most important service rendered by the State.

While the social and economic value of health can easily be appreciated, it is difficult to estimate the dollar value of its importance. In these days of crises we are scrutinizing our individual budgets and the budgets of governments, both state and nation, it is much more easy to see what we get for the dollar we personally spend than to find out what we get for our tax dollars. Police protection, fire protection, health protection, education, good roads, are some of the things which occur to one and there are many more, but what is each one worth, is it a necessity or a luxury? Could it be obtained more cheaply in any other way?

While the many services rendered by the tax dollar are important, I believe it is generally agreed that the expenditure for public health means more than all the rest, for without health one would have no home to burn. Without health the child cannot get an education. When ill in bed, one cannot enjoy good roads. When disease robs one of his best asset, there is but little need for police protection against burglary.

From my long business experience, I have naturally tried to look at public health work as a great economic necessity, and I am sure with all the proud boasts we make of our industry and agriculture, our mines and minerals, our greatest asset is the men and women of our State, for without intelligent and strong citizens to develop these great resources, they will lie dormant and unproductive.

A few years ago there appeared a new book on the money value of a man by L. I. Dublin and A. J. Lotka of the Metropolitan Life Insurance Co. which has thrown a flood of light upon this subject and given us a basis for making the calculation that we need. They estimate that a man whose earning power is \$2,500 a year will earn nothing until the age of 15, but up to that time he will have cost his family about \$6,000. If his maximum earning capacity is \$2,500, at the age of 20 his earning power will be worth \$30,200, at 40 years \$25,000, and at 60 \$8,000. While these figures, I know, are only estimates and may be incorrect, they give us some food for thought; and as there were 32,733 deaths in Georgia last year, I believe we all agree at least 25 per cent of these deaths could have been prevented with proper treatment and medical care, and these people might have continued to live to be useful citizens.

In the days before the Civil War, a slave was valued at \$1,000, and I am sure in this enlightened age we could conservatively value the average human life in Georgia at a minimum of \$5,000, so that if 25 per cent of the deaths last year or 8,000 lives could have been saved, at an average dollar valuation of \$5,000, the State's loss on a cold-blooded calculation was \$40,000,000 or more than 10 times the valid bonded indebtedness of Georgia.

To make another calculation, if the same death rate in Georgia in 1928 had prevailed in 1938, we would have lost 4,820 more citizens than we did, or a saving of 4,820 lives due to the advance in medicine, public health work, and the general education of our people. This means by the same dollar value calculation just used we have saved for the State in preserving the lives of these citizens a dollar valuation of \$24,100,000.

It has been estimated the cost to this country of preventable deaths and unnecessary sickness runs to ten billion dollars a year.

As you know, the life expectancy has been greatly increased during the last 30 years, and it is now estimated a child born has a life expectancy of 61 years against 49 years in 1900. This means that more people are living longer and a very much larger per cent of our population is now in the higher age brackets; and if the progress made in the last 30 years is continued—which I hope and believe it will



be—the percentage of old people will continue to increase.

This has caused an important change in the activity of a large number of our citizens and is affecting seriously their economic condition owing to the increasing difficulty they encounter in securing employment, and that is one of the principal reasons why the advocates of old age pensions are so numerous and why its advocacy is becoming politically popular.

A few days ago in the U. S. Senate the newly elected Senator from California, Mr. Sheridan Downey, was reported to have said, "In my own state four out of five people past 50 years of age are in despair and insecurity. They wear around their hearts iron bands of desperation forged there by loss of jobs, sub-normal incomes, they being a burden upon their children or their children burdening them.

"The great masses of our senior citizens are the men and women who built this nation. Nine out of ten of these men and women, past 50 and 60 and 70 years of age, were brought up in frugality, thrift, and hardship. With their toil and their sweat, and sometimes their blood, they built our railroads, our utilities, our factories, and our cities."

While I am not familiar with the proportion of old men in this class in Georgia, I presume Senator Downey's statement about California would apply to practically all other states; and prolonging life seems to have its problems as well as its benefits.

In the past few years we have witnessed great change in all phases of our economic and social life. With the modern methods of transmitting what is going on in our own country and throughout the world, the farmer, the merchant and manufacturer, the banker, and the doctor all have had to adjust their operations to keep step with the times. There has perhaps been more progress made in the research and improvement along medical lines than in any other profession, and one of the great practical virtues of medical science is that it knows no international boundaries, no creed or religion or politics—it is the most universal of our human activities. A new cure for disease developed in any city in the world is soon conferring its blessings upon sufferers in every civilized land and

everywhere else that effectual medical treatment exists.

In fact, it might be said that medical science is the one remaining ambassador of good will welcomed by all nations. Its flag could well be a white cross, twin symbol of the red cross, as it carries succor to all suffering humanity, and should be an important factor in maintaining the peace of the world.

Unfortunately, we have recently seen an effort made to have the Federal Government encroach upon the management of the medical profession as it has in so many other lines of business. I believe the keynote of the New Deal can now be said to be, "Let the Federal Government do it." This siren song has found its echo in the hearts and minds of millions of men and women. It has palsied ambition, dulled the pioneering spirit of our individual efforts which have made our country great, and if not silenced will lure it to destruction. Seeds of indolence have been sown throughout the land, and I fear the crop will re-seed itself for many years. High Federal taxes and low politics united in unholy wedlock breed waste and extravagance which can only be fed by the false political appeal of helping humanity.

The apparent willingness to allow the Federal Government to assume greater responsibilities has caused the states to relinquish their rights and obligations and caused the citizen to subdue his individual freedom.

In the matter of public health, the Federal Government has helped some, and we appreciate this belated assistance. I cannot speak for the medical profession, but I can say that I seriously doubt the ability of any government to properly and effectively have its employees run any high profession or business enterprise. I believe, however, that the spirit of individualism has only been dulled and has not been daunted in the hearts of many of our citizens and its revival is the only way to save our country from the regimentation of all enterprises.

The old-fashioned family doctor, as gentle, kind, and capable as he was, with his horse and buggy or saddle bags, has in the evolution of medical practice taken an honored place in the historic background of the yesteryears, but there still remains in the family circle a desire to retain its right to select

its own physician or surgeon and pay a reasonable fee for his service.

I am not unmindful of the fact that many of our unfortunate fellow citizens cannot make that selection and cannot pay the cost, and it is a definite obligation of the State to see that its indigent and underprivileged citizens have proper medical attention, but this can be done without going to the extreme of socialized medicine.

No country in Europe having socialized medicine has secured as rapid reduction in morbidity and mortality as has been attained in the United States under private medical practice.

While the facilities for serving the sick are inadequate, we must not fail to give full credit to the work which has been and is being accomplished by the devoted doctors and nurses, by the generosity of private citizens, by the zeal of church workers and social workers, by aid from local, State and Federal governments. It is a monument to our civilization and a high expression of the American spirit.

I think it can be truthfully said that no profession has given as freely of its services without the hope of compensation and more generously aided suffering humanity than the members of the Medical Association of Georgia, and I hope some plan may be developed whereby they may be more justly compensated for the work they do in the cities and in the vast rural sections of our State.

As Dr. Shoulders said, a careful estimate based on numerous studies places a value of services donated by the physicians of the United States to the indigent, during the last few years, at one million dollars a day.

We admit there is a real need for greater and better medical service. The principal need is in two areas of our population. There should be better medical facilities for persons of low income in sparsely settled rural areas. In most cities, most of the poor get good medical services. They get it from hospitals and physicians who do it at nominal cost or without cost. But in sparsely settled rural areas there is need for more hospitals, more health centers, more professional nurses, and more physicians.

The other class that is in need of good medical service at reasonable cost consists of persons of moderate means, persons whose

income runs from \$1,000 to \$2,500 a year. These not being poor, cannot take advantage of free service. At the same time, the ordinary costs of medical service become, in cases of serious or prolonged illness, a crippling burden, and the doctors have long recognized the needs of this class.

I believe, however, these problems can be solved without unnecessary compulsion upon citizens or upon doctors and without centralized domination in Washington.

In these days of great anxiety throughout the world, when the war spirit seems to force all nations to great expenditures, for armaments, we cannot help thinking how much better it would be for mankind and the preservation of our civilization if this money could be spent on education and in saving the bodies and souls of men instead of destroying them!

It is our duty as well as, I am sure it will be, our pleasure to continue to be loyal to the army of good citizens who are carrying on the battle against disease and do our best to protect our fellow citizens, preserve their strength and independence, so that when the clouds now heavily hanging over the world pass by, we can with renewed courage carry our State and Nation on to better and happier days.

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#### FAMILY TENDENCY TO DISEASE

The familial tendency to disease is illustrated by the deaths of three brothers from inflammation of the kidneys, reported by Solomon S. Rinkoff, M.D., Abner Stern, M.D., and Henry Schumer, M.D., New York, in *The Journal of the American Medical Association* for Aug. 19.

The condition in these brothers, who died at 24, 25 and 23 years respectively, was evidently hereditary.

The New York physicians point out that repeated questioning of the parents failed to elicit a history of any illness that could have affected the youths' kidneys except that they all suffered from "nasal trouble."

In line with the hypotheses for familial disease the authors suggest that their three patients were born with kidneys that had only a low resistance to disease and that the nephritis of these patients was the result of a hypersensitivity of the kidney tissues to bacterial toxins, possibly from a sinusitis ("history of chronic nose trouble").

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There is nothing to dread about cancer of the breast if one finds it in time, because it can be cured if treated early!—*Hygeia*.

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Of all the special sense organs the eyes are the most advanced in structure and function.—*Hygeia*.

## ADVANCES IN THE RECOGNITION AND TREATMENT OF NUTRI- TIONAL DISTURBANCES†\*

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*Augusta*

The rapid increase in knowledge regarding the functions of vitamins, the successful isolation of members of the so-called "B<sub>2</sub>" complex and their synthesis on a commercial scale have opened entirely new methods of approach to the problems of nutritional disease. While it is likely that much more will come from the research of biochemists in the near future, they have already given the clinical observer long awaited tools with which to work and a very definite challenge to unravel the tangled skeins of human deficiency diseases. While it has been evident for very many years that such conditions as scurvy, beri-beri, pellagra and even rickets are syndromes rather than clean-cut clinical entities, it is only since pure synthetic vitamins have become available that accurate recognition of symptoms and signs due to specific deficiencies has been possible.

Nutritional disturbances in the human subject are always complex. We like to attribute them to family diet yet diet can produce disease only in so far as it fails to supply those essential factors which are used up in essentially normal metabolic processes. The nature of human diets is such that it is almost if not quite impossible for an inadequate diet to produce protein deficiency edema or pellagra or scurvy without producing other disturbances. Ordinary foods are apt to contain groups of vitamins so that a diet very poor in meats is apt to cause signs of deficiency of vitamins A and D as well as of nutritional edema. One which is high enough in carbohydrate and poor enough in protective foods to cause pellagra is almost certain to be very low in vitamin B<sub>1</sub> as well as nicotinic acid. One poor enough in foods containing civitamic acid to result in scurvy is almost necessarily very low in carotene, the precursor of vitamin A. Diet, while important, is only one factor in the genesis of deficiency disease. The ability of the stomach and intestine to

absorb the products of digestion as well as vitamins, the capacity of the liver to store and possibly to synthesize some of them, are quite as essential as adequate intake. Many things, particularly edema of the intestinal mucosa, diarrhea and intestinal infection may interfere with absorption. In certain instances deficiency of one vitamin may interfere with the absorption of various substances from the bowel. Increased utilization of energy, whether from excessive carbohydrate intake, unusual muscular effort, fever or increased metabolism of endocrine origin can cause rapid depletion of vitamins. In the course of malnutrition various vicious cycles may be produced. In vitamin B deficiency edema of the intestinal wall may interfere with absorption of all nutritive elements to some degree, or diarrhea resulting from failure of absorption may bring about extreme degrees of starvation in addition to multiple avitaminoses. In chronic nicotinic acid deficiency, atrophy of the mucosa of the digestive tract and achlorhydria may produce a very similar symptom complex. The anorexia which accompanies deficiency states is a serious complication, making dietary therapy most difficult.

The frequency of "subclinical" nutritional diseases is only beginning to be appreciated. For every frank case of deficiency disease from four to five subclinical cases occur, perhaps more. Youmans has aptly compared deficiency disease to an iceberg of which one part is visible while eight parts remain submerged. The symptoms of early or mild deficiency of the vitamins are quite similar. Loss of energy and strength, "nervousness," vague muscular pains, anorexia with varied gastrointestinal complaints of "neurotic" type, headache and forgetfulness are common in the histories of all the syndromes. Often no definite signs of any disease are present. Not infrequently definite nutritional disturbances can be recognized if the admittedly imperfect methods of examination at present available are employed. Organic disease must of course be searched for and if found, due consideration given to its possible influence on nutrition. Particular significance should be attached to gastric anacidity which is common in all deficiency syndromes, to nerve tenderness, hemorrhagic manifestations, unexplained

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visual disturbances, mild confusion and depression, gingivitis and glossitis and constipation or diarrhea.

The syndrome of vitamin A deficiency is characterized by metaplasia of epithelial structures and by disturbances in the synthesis of visual purple. Symptoms may be very diverse: mild conjunctivitis, poor vision in dim light, *muscae volitantes* in the absence of vitreous opacities, nervousness, anorexia and absence of sweating may be complained of. Dry skin, follicular keratosis, rapid drying of the cornea or eversion of the eyelids, Bitot's spots and slight brownish pigmentation of the sclerae may be observed. Not infrequently chronic bronchitis and bronchiectasis may be present as a result of metaplasia of the bronchial mucosa. Failure of dark adaptation (or in terms of disordered physiology, normal synthesis of visual purple), is most readily detected by photometric tests. There are various types of apparatus available for the determination of hemeralopia but a clinical estimate of night blindness can be made from observation of delay in ability to develop visual acuity in a dimly lighted room after exposure of the eyes to bright light, either sunlight or artificial illumination. Chemical methods for determination of vitamin A in the blood are not too complicated for most hospital laboratories and are less uncertain than quantitative estimation of delay in dark adaptation. It is important that the possibility of lack of vitamin A to be kept in mind in the presence of metabolic disturbances such as diabetes and in all cases of chronic hepatic and biliary disease, as well as in other deficiency syndromes. It is characteristic that response to treatment is slow.

Deficiency of the various members of the "B" group of vitamins is of particular importance in view of its frequency. Here mixed pictures are often seen and therapy, particularly if a single pure vitamin is used, may be ineffectual since only one group of symptoms or signs may be improved. The syndromes of beri-beri and pellagra have been so long familiar that they need not be described. Much more important are the subclinical and "atypical" manifestations. Malaise, loss of appetite, vague gastro-intestinal symptoms and fleeting muscle and nerve pains are common complaints and often suggest psycho-

neurosis rather than physical disease. Irritability, loss of memory, slight mental clouding, too easy exhaustion and palpitation on mild exertion are symptoms of more advanced deficiency. Severe manifestations may develop rapidly from such a level if any additional demand on metabolism occurs. The three vitamins of this group which are known to be necessary to human health, thiamin, nicotinic acid and riboflavin, play an essential part in the final production of energy from carbohydrate and so are concerned with the proper function of every cell. This all-pervading nutritional function of these vitamins explains the multitude of symptoms which may result when the supply runs low. This supply has to be almost constant because none of the group can be synthesized in the body; they are not stored for long; any excessive intake beyond current needs being rather rapidly excreted; utilization is rapid, particularly in the presence of a high carbohydrate diet. Furthermore many if not all the factors already mentioned as possibly conditioning the absorption and use of vitamins apply to these.

Recognition of deficiency of thiamin (vitamin B<sub>1</sub>) depends almost entirely on clinical manifestations; anorexia, nervous irritability and palpitation have already been mentioned. Intermittent aphonia, "atonic" constipation, paresthesias and nerve pain are always suggestive. Tender nerve trunks, small areas of diminished sensation over the skin, edema not of obvious origin and tachycardia may be found. Not uncommonly true beri-beri is mistaken for ordinary congestive heart failure since it has for a long while been considered almost non-existent in this country. In any case presenting suggestive symptoms and signs a careful dietary history and the application of Cowgill's tables to the information gained from the history may be extremely helpful. Frank peripheral neuritis of any type necessitates a careful consideration of thiamin deficiency as its cause. In patients with cardiac complaints, electrocardiograms may be of diagnostic importance. Low voltage, short P-R intervals, prolonged ventricular systole with depressed S-T segments or altered T waves are suggestive and call for a therapeutic test with large amounts of thiamin. In the presence of edema or general anasarca low

venous blood pressure may differentiate beriberi from congestive heart failure. There is no reasonably simple or reliable method for the determination of thiamin in body fluids so that a therapeutic test is always justifiable in questionable cases.

Treatment of B<sub>1</sub> deficiency is best carried out with the purest preparations obtainable; this is particularly true when therapeutic tests are done. In the presence of gastro-intestinal disturbances or of edema hypodermic or even intravenous administration is advisable since there may be poor absorption from the stomach and bowel. Severe manifestations require doses of 50 to 100 milligrams given parenterally until the effect is evident. Mild symptoms are satisfactorily treated with doses of 2 to 10 milligrams three times daily by mouth. We have not seen untoward effects from doses of 100 milligrams or more given intravenously. When improvement has advanced to the point of return of appetite and of adequate digestive functions, yeast or other cheaper sources of thiamin may be substituted, never omitting a really adequate diet as the only sound foundation for treatment.

For present purposes pellagra may be considered to be synonymous with nicotinic acid deficiency although the complete syndrome doubtless depends on additional factors. Here we have for many years considered the state of the tongue to be the most satisfactory index of the disease and of improvement or relapse, an indication far more sensitive and for that matter probably more specific than dermatitis. In the vast majority of patients with the pellagrous syndrome the tongue, first red, then atrophic, finally red, atrophic and ulcerated, presents the first definite physical sign of disease. Under treatment, fading of redness is constantly the first sign of improvement and may come within 12 hours after adequate therapy is started. It seems likely in the light of information gained from the use of nicotinic acid, that glossitis is relatively a late sign in many instances. The symptoms common to all avitaminoses usually precede any pellagrous manifestation. Psychic symptoms are particularly apt to pass unnoticed; forgetfulness, mild confusion, various apathetic states and profound stupor may occur without glossitis or diarrhea. Delirium and glossitis may occur together in

certain very acute instances of deficiency precipitated by extraordinary utilization of energy. In coma and delirium a red tongue is common and in the past has usually been attributed to dehydration or to "toxic states" although in many instances it is due to neither, but to pellagra. It is not to be inferred that all types of coma and delirium are of this origin. Only those in whom no evidence of cerebral trauma or vascular accident is present are to be suspected of being due to pellagra. A notable exception to this statement is the persistent coma which sometimes follows severe alcoholism and which is not improved by treatment for "wet brain." This coma, like the seemingly spontaneous types of stupor and delirium referred to, is very apt to be pellagrous. Still another psychic manifestation is "central neuritis" which has been described by Jolliffe.<sup>2</sup> This is characterized by stupor with general spasticity, sucking movements of the lips and cheeks when any object is put in the mouth and reflex grasping movements of the hands. In this entire group it is possible to produce rather spectacular improvement with nicotinic acid.

The explanation of the wide variety of symptoms and signs which pellagra may cause seems to lie in the universal need for nicotinic acid by all body cells. Like thiamin it is essential to the metabolism of carbohydrate. Nicotinic acid is a component of cozymase, which in turn is a member of the enzyme system which accomplishes the final liberation of energy from glucose. When the caloric needs of the body are met by food consisting predominantly of carbohydrate and utilization of energy is much increased and cozymase is used rapidly; in the absence of replacement, deficiency develops gradually or acutely depending on the nature of the diet and many conditioning factors. The most striking example of this is seen in patients maintained for several days on nothing but glucose solutions administered intravenously. Here the most severe lesions of pellagra and of thiamin deficiency as well may occur. The same phenomena are produced when the caloric needs of the body are met largely or entirely by alcohol over a period of time. Why one patient should become stuporous, another show the signs of "central neuritis" and still another typical pellagrous glossitis and stomatitis we do not know.

Certain tests are of value in differentiating obscure conditions, particularly those presenting delirium and stupor due to nicotinic acid deficiency. Vilter, Spies and Mathews<sup>3</sup> have described a method for the determination of nicotinic acid and its compounds in the urine. This method is difficult of application since all mucin must be removed from the test material. The urine of pellagrins shows absence of or greatly reduced amounts of nicotinic acid compounds. Vilter, Vilter and Spies<sup>4</sup> recently brought forward a test for cozymase in the blood which promises to be most useful, though the time required for the determination is considerable. A useful though probably non-specific test which has been most helpful is the demonstration of "red substances" in the urine when the first test of Hans Fischer for coproporphyrin is applied. We began the use of this procedure about four years ago with the idea that undue accumulation of porphyrin in the blood might be a cause of the pellagrous dermatitis. Ellinger and Dojmi<sup>5</sup> published observations shortly afterward indicating that the test was useful. Since then there have been several reports on the subject.<sup>6,7</sup> It soon became evident that the results of the test did not correspond with quantitative estimations of porphyrin in the urine and recently Watson<sup>8</sup> and Dobriner and Rhoads<sup>9</sup> have showed this to be the case. The fact remains that almost all patients presenting any phase of the syndrome show large amounts of the chromogenic substance in the urine and its presence justifies the application of a therapeutic test with nicotinic acid. The nature of the body (or bodies) giving the reaction is not known though there is reason to suspect that it may be an indigo derivative.<sup>8</sup>

The treatment of pellagra with nicotinic acid forms such a well known and dramatic chapter in recent medicine that discussion is not necessary. In the patients with stuporous conditions and in those who are unable to take orally administered medication the intravenous administration of sodium nicotinate is most important. Amounts varying from 150 to 500 milligrams may be necessary during the first few days of treatment and it may be desirable to supplement this with an additional amount given by stomach tube. It is never possible to predict the requirement of

nicotinic acid and very large amounts may be necessary to accomplish the desired results. Always if any sign of associated thiamin deficiency exists, thiamin should be given along with nicotinic acid. As soon as possible feeding should be started, supplemented with nicotinic acid or yeast or both by preference.

Riboflavin deficiency in human beings has been a matter of interest for some time since riboflavin is closely linked with nicotinic acid and with thiamin in the intermediate metabolism of carbohydrate, and has been shown to be necessary for the oxidation of hexose phosphoric acid to phosphohexonic acid. Deficiency syndromes in experimental animals have been well established. Last year Sebrell and Butler<sup>10</sup> described lesions developing in patients on a deficient diet which were not related to nicotinic acid deficiency and were cured by riboflavin. The lesions are those long associated with pellagra, fissures at the corners of the mouth, denudation and slight ulceration of the lips at the mucocutaneous junction, branny dermatitis of the upper lip and nares and dry comedone like plugs in the sebaceous glands of the alae of the nose and on the malar eminences. We have been able to confirm the observations of Sebrell and Butler that this type of stomatitis or cheilitis can be cured with riboflavin and that it will develop in patients on a deficient diet while under treatment with nicotinic acid. The relation of riboflavin to more serious disorders is not known; it might be suspected that it has to do with fatty degeneration of the liver in pellagra.

The requirement of riboflavin is evidently small and it is present in many natural foods. Sebrell and Butler were able to produce cure with amounts as small as 0.025 mg. per kilo per day. We have used much larger doses, from 6 to 50 milligrams, in the hope of producing very rapid resolution of lesions. The time required seems to be from five to ten days regardless of the dose, and oral administration seems as effective as injection.

Deficiency of vitamin C in the form of frank scurvy is quite rare among adults but is being recognized with increasing frequency. Subclinical scurvy is common throughout the country. The symptoms of an inadequate saturation with ascorbic acid are much like those of other mild or moderately severe



avitaminoses but tender bleeding gums, occasional crops of petechiae, ready bruising and frequent nosebleeds should suggest investigation. In children a subperiosteal hemorrhage is sometimes mistaken for osteomyelitis and not very infrequently an alert roentgenologist recognizes the characteristic bone changes of scorbutus. In many adult cases of vitamin C deficit, blood dyscrasia may have to be ruled out by proper methods.

Tests are fortunately simple. For clinical purposes the capillary fragility test of Gothlin is quite adequate. To carry out this procedure a 2.5 cm. circle is marked on the hairless flexor surface of a forearm 4.0 cm. below the cubital fossa, a blood pressure instrument is adjusted to the arm and the pressure in the cuff is raised to a point half way between the patient's systolic and diastolic blood pressure as previously determined. The pressure is maintained for 15 minutes, then released and after a further interval of 5 minutes the petechiae in the circle are counted. More than 10 are suggestive of cevitamic acid deficiency, more than 20 are diagnostic in the absence of thrombocytopenia. For accurate investigation of individual patients the determination of cevitamic acid in the blood by the method of Farmer and Abt<sup>11</sup> and in the urine by Tillman's method is within the scope of any clinical laboratory.

Treatment of the scorbutic syndrome can usually be carried out successfully with citrus fruit juices given in adequate amounts; 300-500 cc. of orange juice and 70-155 cc. of lemon juice daily will control all ordinary cases. In the presence of infection or of disease of the gastro-intestinal tract oral administration of citrus fruit juice or of cevitamic acid may be ineffectual because of lack of utilization. Large amounts of the vitamin can be given intravenously in sterile water or the sodium salt can be used; 300-500 mg. daily may be required for salvage of a seriously ill patient. In our experience severe deficiencies of vitamin B<sub>1</sub> and evidences of pellagra are usually present in frank scurvy and require appropriate treatment. Attention to any infectious processes and rapid additions to the diet until one fully adequate is being eaten are necessary during convalescence. For reasons which are not at present understood some patients improve more rapidly when the pure vitamin is given while others

show little effect from it and require the addition of natural sources of cevitamic acid. This paradoxical response has raised the question of the synergistic action of vitamin C and the somewhat hypothetical vitamin P.

Deficiency of vitamin D has no definite syndrome in adult disease and the role of vitamin E in human nutrition is still uncertain. It is probable that the next year will bring much information regarding the nature and action of the so-called vitamin K; at the present time it is known to be of value in the hemorrhagic diathesis associated with marked jaundice and has proved of value in the surgical management of biliary obstruction.

In all nutritional disturbances it is most important to realize that few patients suffer from a single avitaminosis, that many things other than faulty diet may contribute to any of the syndromes and that the last few years have given us potent weapons against the more important of the group. It is equally important to remember that a pure vitamin, however active in the dramatic cure of acute disease, cannot be depended upon for indefinite maintenance of a patient. An adequate diet fortified if necessary with one or several of the foods rich in vitamins is the only satisfactory method for prolonged or permanent relief of the nutritional diseases.

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Dr. Thomas Parran, Surgeon General, U. S. Public Health Service, announced that the sum of \$4,379,250 will be allotted to the states for venereal disease control during the coming twelve months. This expenditure is made possible by the LaFollette-Bulwinkle Act, which appropriated \$5,000,000 for the fiscal year 1940. Allotments to the states constitute 86.9 per cent of the total amount available for venereal disease control. The residue will be used for research, laboratory and field demonstrations, and administration.

## THE EFFECT OF NERVOUS INFLUENCES ON DIGESTION\*

ERNEST F. WAHL, M.D.

*Thomasville*

The intensity and complexity of present day life is resulting in such an array of nervous disorders that it is necessary to recognize the fact that any illness resulting from a disturbance of the emotions is a disease entity and must be regarded as such. We are interested here primarily in digestive disturbances resulting from nervous influences, but we should call attention to the fact that the same etiologic factors may produce disturbances of the heart or other organs. What determines which organ of the body is affected is not always known, but in some instances the patient's attention has been directed to some organ by the illness of a relative or friend.

The thoracic and abdominal viscera are partly or completely under the control of the autonomic nervous system. This division of the nervous system comprises inhibitor and accelerator factors which are normally in a delicate state of equilibrium without the domination of the conscious mind. However, the autonomic nervous system is very susceptible to psychic influence and any condition which lowers the nervous reserve may bring into the field of consciousness the action of organs previously unnoticed or may focus the attention on any part of the body.

Many factors are involved in the process of normal digestion and nutrition. The individual must eat an adequate amount of a well balanced diet, the food must be subjected to the action of enzymes secreted by various parts of the digestive system and pass through the stomach and intestines at a normal rate. Psychic disturbances may lead not only to the ingestion of a bizarre diet, but may alter also the amount of digestive secretions necessary to break down the food into forms that can be absorbed; or so alter the motility of the tract that the food lies in one part for hours, or passes through so rapidly that little absorption occurs.

Each individual's emotional stability is dependent upon his heredity, and psychogenic stimuli will have an effect in direct proportion to the nervous threshold. It is evident

on close observation that certain behavior or mental traits tend to occur in families. A nervous child is often accompanied to the physician by a more nervous mother or grandmother. Not long ago a lady, whom I had treated at times for five years, came to me in great distress because her twelve-year-old daughter would not eat breakfast and because she chewed her fingernails. A look of astonishment passed over the mother's face when I reminded her that to my exact knowledge she had not eaten breakfast for many years despite constant urging by her husband. She returned home, forced herself to eat adequate meals without any discussion of food, and within six months both mother and daughter were in a normal state of health.

With an unstable nervous background, various social factors may act as the precipitating cause of a nervous disorder. Social conflict or disharmony between the individual and his environment is the precipitating factor in many neuroses. In fact, the history of the evolution of man is largely a record of conflict between the individual and the concepts of the group. The instincts of self-preservation and procreation present the two main factors in biologic life and any threat to these instincts will call forth a conscious or subconscious defense mechanism. Ample evidence of this is seen almost daily in any physician's office, especially among married women, although no age or sex is immune. In a like manner a behavior problem may develop in a child with the advent of a new baby in the family.

The part played by parents in the production of nervous disorders in their children is of great importance and most difficult to control. Innumerable lives are made unhappy and many homes ruined by a parent who is reluctant to turn the son or daughter loose after marriage. At the present time I am confronted by two problems of this type. In one instance a mother feels that she should continue to run her son's household although he has been married twenty-five years, and the son's wife feels that she should have control of her own home. The result is a chronic invalidism of the wife, another manifestation of the instinct of self-preservation. Another mother of seventy years, who lives with her married daughter, is jealous of the attention shown the husband and children by her daughter.

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.

The mother frequently accuses her daughter of not loving her and goes to bed for a week. This performance invariably results in a digestive upset for the daughter characterized by nausea, vomiting and abdominal pain.

An eighteen-year-old girl who was reared under her mother's thumb in the strictest sense of the word is ready to enter college. The mother has slept with the child every night since she was born, has accompanied her to all social functions, taken her to school and met her after school. The daughter has never had a close friend of any kind and has never made a decision in her life. How can she be expected to adapt herself suddenly to an entirely new world without the subconscious mind crying out for the former protection?

I have personally observed many instances among college students where digestive disturbances could be traced directly to the lack of harmony between the individual and his environment. A most common single cause is the divorce of parents and the attempt of the child to distribute his love and loyalty to each parent. Quite often each parent becomes married again about the time the child reaches adolescence, and a boarding school or college is selected as a reasonably safe depository for their offspring. There, among other students who are being visited by parents or planning what they will do when vacation arrives, this victim of social conflict feels like an outcast, develops an inferiority complex and, sooner or later, some visceral manifestation of an unbalanced autonomic nervous system.

Fear, an emotion closely related to the instinct of self-preservation, plays a dominant role in the lives of most people. The effect of fear may be constructive or destructive, depending on the degree of emotion and the heredity background of the individual. I have seen men achieve great success because of the fear of not leaving adequate provision for their families, and, on the other hand, I have seen men wholly incapacitated by fear. A few years ago a timid country boy, a sophomore at the University of Georgia, came to me for examination. Although a brilliant student, he was always terrified by a week of examinations and always had about twenty bowel movements a day as long as the examinations lasted. A careful study of his

case failed to show any disease. An occasional dose of simple sedative was given during the next examinations and there was no intestinal disturbance. In this instance, the accelerator fibers were affected by the psychic stimulus.

Other important etiologic factors of a "nervous digestive system" are anger, mental and physical fatigue and enforced idleness of a previously very busy individual. During the past eight years physicians have seen great numbers of patients with digestive disturbances which were precipitated by enforced idleness, either through failure of their business or fear to start any large enterprise. These individuals never knew how to relax or play and cannot learn it overnight. In time, the energy previously spent in their businesses is directed to their bodies and some type of neurosis develops.

Gastro-intestinal neurosis may resemble any organic disease of the digestive system such as peptic ulcer, gallbladder disease, appendicitis, colitis, or a newgrowth but, as a rule, the symptoms are vague, the pain less acute and lacking the radiation commonly seen in organic disease. Anorexia and nervous vomiting are very frequently encountered, and it is this type of patient who states—"But, Doctor, I eat until I'm full"—while as a matter of fact they have a sensation of fullness in the epigastrium although actually on a starvation diet. Occasionally the opposite is encountered in individuals whose stomachs empty very rapidly: these patients are ravenously hungry an hour after eating a large meal. Heart-burn or pyrosis is a common functional disorder of the stomach, probably being brought about by both secretory and motor dysfunctions of the organ. Belching and air swallowing (aerophagia) are usually nervous symptoms and occur almost entirely in women. Mild abdominal cramps are very commonly encountered in the thin, nervous individual with ptosis of the stomach and intestines. It is rare to find a patient of this type who has not had the appendix, and in many instances the gallbladder, removed needlessly.

When an obviously nervous, unstable individual presents himself with digestive symptoms, the physician is often tempted to tell him to forget it because it is simply nervous-



ness. Such advice, if given, would be most unfortunate because a nervous person can have any organic disease. I feel that more than the usual amount of time should be given to the study of a nervous patient. Every possible organic disease should be ruled out. By careful examination two things are accomplished: first, organic disease as a cause of nervousness is eliminated, and second, thoroughness gains that confidence of the patient which is necessary before any treatment will be successful.

#### DISCUSSION ON PAPERS OF DOCTORS SYDENSTRICKER AND WAHL

Dr. George L. Echols (Milledgeville): Due to the shortness of time for discussion. I will only call your attention to Dr. Sydenstricker's reference to the work of Doctors Sebrell and Butler of the Milledgeville State Hospital. I have been in fairly close touch with the work of the latter for a number of months, and I want to urge all of you to be sure to get their reports when published and study these reports of Doctors Sebrell and Butler along with the paper as presented by Dr. Sydenstricker. I also wish to congratulate Dr. Sydenstricker on the pictures which he presented, especially the ones showing lesions about the corners of the mouth.

Dr. J. A. Redfearn (Albany): Since the time is limited, I'll start at one end of the gastro-intestinal tract, even at the mouth, and go through to the other, and be through within three minutes. These patients are quite a little disturbed by looking at their tongues. They are equally disturbed by constipation and psychogenic disturbances and when they get dyspepsias. Speaking of the coated tongue, there is just one point I want to emphasize in reference to that, and that is this—by far the largest number of reasons for the coated tongue is dry mouth. That information, to the nervous patient, is of very great value I find. Constipation is another form of neurosis. It hurts no none. You can't find in modern text books a discussion of so-called auto-intoxication and intestinal toxemia. The psychogenic dyspepsias are an unfortunate group which are largely of the nervous field and the patients should be told frankly and a way pointed out for adjustment to these problems and adjustment to all other problems in life. These are the essential things and I think the word "adjustment" is just as fine a word as there is in the English language.

Dr. Harold Bowcock (Atlanta): We should be grateful for these two papers which have been presented for discussion. They take up many important points. Both papers have been so thorough in the fields which they cover that not much comment is necessary.

I shall look forward to the opportunity of studying Dr. Sydenstricker's paper when it is published. The author covers much territory in a thorough manner, teaching us the recognition of illnesses due to vitamin deficiencies as well as the prevention and cure of such illnesses.

Dr. Wahl's paper, in stressing the functional elements as they influence digestion and nutrition presents a viewpoint which we are holding with increasing interest all the time. Everyone reads now with much pleasure, I believe, the little book by Dr. Walter Alvarez entitled *Nervous Indigestion*.

It is a fortunate circumstance that these two papers may be considered at the same time. We must always wonder during the examination and treatment of our patients, which of their symptoms are based upon the psychogenic functional elements which Dr. Wahl talked about, and the extent to which such disturbances in function may be responsible for the production of the organic derangements which Dr. Sydenstricker talked about. In other words, it is not infrequent that an illness starts off as a "nervous" functional illness in which the patient's behavior response leads to an organic deficiency. One cannot hope to cure nutritional deficiency states by psychotherapy alone. Therapy must include replacement of those adjuvants which have been lacking. We may state the proposition in simpler terms. A purely psychogenic or emotional response may manifest itself as stated, by indigestion, anorexia, nausea, vomiting and diarrhea. These symptoms may be relieved promptly by psychotherapy with reassurance; but the persistence of such symptoms may lead to the organic changes of nutritional deficiency. On the other hand, the symptoms of deficiencies may be identical with those of psychogenic disturbances.

Dr. Ernest F. Wahl (Thomasville): I appreciate very much the remarks of Dr. Bowcock, especially in regard to the possibility of a condition beginning as a functional disorder and in the end terminating in organic disease. That is what I hoped would be brought out. The thought has been given many times in the last few years that neurosis or psychoneurosis may be due to glandular dysfunction. Perhaps in some remote way that may be true. But I would appreciate someone convincing me that when an individual develops symptoms immediately after he is found in the wrong bed, that it is not purely psychic in origin. I have in mind a man with a gastro-intestinal disturbance which started immediately after such an unhappy occurrence. He has been purged and irrigated until there is little left of the intestinal tract. He still wonders if he is going to get shot each time he appears on the street. All modern diagnostic methods have failed to reveal organic disease in any part of the body. If he could have been moved to another part of the United States he would have been cured. We see many somewhat similar, but less dramatic, instances. I do not believe that all nervous disorders are due to improperly functioning adrenal glands as has been suggested occasionally.

Treasury Department, United States Public Health Service, Washington, D. C., released a Press Service statement in which it was stated that, "More than a million American women of child-bearing age have contracted syphilis. In pointing out that 60,000 syphilitic babies are born every year, the Federal health authorities emphasize the tragic but needless consequences of neglecting to give syphilis tests and treatment to prospective mothers. Five times out of six, mothers with untreated syphilis bear dead or diseased babies. Ten out of eleven of these tragedies need not have happened.

## PUBLIC HEALTH PROGRESS\*

S. C. RUTLAND, M.D.  
*LaGrange*

Custom has decreed that some time on the program be allotted to the presiding officer. I do not know why we should adhere to this custom, except for the fact that it is a gesture of courtesy and respect, which I deeply appreciate, and too we are always hopeful that through this medium some contribution may be made to the organization.

Following, as I do today, speakers of such prominence and recognized abilities I am impressed with the particular vulnerable spot in which I am placed, and had it not been for my personal dislike for upsetting the usual order I would have insisted that your committee break this time-honored custom and give these next few minutes to someone else.

Perhaps I should spend some time in enlarging those usual remarks about my gratitude for having been elevated to a position of honor and distinction among my fellow workers and having been allowed to serve in the capacity of your President for this year. I am grateful to you for this honor and you have my sincerest thanks.

In my attempt to arrive at some semblance of definiteness concerning my remarks for today I found myself worrying. I recalled the story of the mother who was sending her daughter to college. The daughter was to depart the following morning and this mother was giving the usual instructions. "Now daughter, you are going into a new environment to meet new people and to form new acquaintances. Pretty soon after you are in college you will meet a young man and he will ask you for a date and you will honor his request, but I'll not worry. The two of you will stroll around the campus in the moonlight and presently you will find a seat beneath some pretty tree and there you will tarry, but I'll not worry. Pretty soon he will put his arm around you and pull your head upon his shoulder and right then I'm going to worry." All this happened just as the mother predicted. The daughter strolled the campus, but she remembered that mother was not worrying and they came to this par-

ticular seat beneath the tree where they sat and she remembered that mother was not worrying and pretty soon he put his arm around her and placed her head upon his shoulder and she said, "Wait a minute, let me put your head on my shoulder and let your mother do the worrying." So I took my head off Dr. Lunsford's shoulder and let his department worry while they provided me with a brief history of public health in Georgia.

The first record of any law pertaining to public health in Georgia was passed approximately 100 years ago and that law called for the appropriation of 13 guineas for the relief of the sick and childbearing women during passage to this province.

In 1866, the Legislature passed an act for the control of smallpox in Georgia. The power to enforce that law was given to the Justice of the Inferior Court and the Corporation Authorities of towns and cities.

In 1875, the Legislature passed an act creating a State Board of Health. The law authorized the Governor to appoint a physician of experience from each of the nine congressional districts; these together with the Comptroller General, Attorney General, and Geologist constituted the Board. A meeting of that Board was held Oct. 10, 1876 with all members present except the secretary, who was delayed in Savannah on account of an epidemic of yellow fever. The following year, 1877, the Legislature failed to make any appropriation to the State Board of Health for a continuation of the work. Dr. Eugene Foster expressed his opinion of this failure of the Legislature to provide funds for public health work in Georgia as follows: "Utterly devoid of appreciation of the possibilities and economy of public health service, the Georgia Legislature, in 1877, blotted the State Board of Health out of existence by refusing to vote the paltry sum of \$1,500.00 a year for its maintenance. This one act resulting from shameful ignorance has done more to retard the prosperity of the State than any other act since the establishment of the colony."

The second State Board of Health was organized Sept. 10, 1903, under an act of the Legislature. The Board consisted of 12 members, one from each congressional district, appointed by the Governor and the

\*Address before the Georgia Public Health Association, Atlanta, June 8-10, 1939.

secretary. An appropriation of \$3,000.00 was made. After some difficulty in organization, the department began operation in a small room in the basement of the Capitol in 1904. The first work was devoted to bacteriology and the control of smallpox and yellow fever. During the year 1914, the health laws of the State were amended by the passage of the Ellis Health Law which paved the way for an extension of public health services into the rural districts of the State. In 1915 two counties, namely, Glynn in the southeastern corner of the State, and Floyd, up in the northwestern part of the State, began operating full-time health departments under this law. The following year Thomas and Tift counties were added, and the following year Sumter, and so on until last year there was a total of 54 Georgia counties representing 1,777,129 people enjoying the benefits derived from a full-time county health program.

The State Board of Health as created in 1903 was abolished in 1931 and for two years the department was operated by a director and an advisory board. The General Assembly of 1933 re-established the State Board of Health to consist of 14 members and the Governor as *ex officio*. The term of office of the members are for six years and alternate so that two appointments are made each year and it is under this board that the department operates today.

The laboratory of the Georgia State Public Health Department was organized under the administration of Dr. H. F. Harris and was formally opened Jan. 1, 1905. At present, in addition to the Central Laboratory, there are in operation branch laboratories in Albany and Waycross. We are familiar with the excellent service rendered and the enormous amount of work done by this department in the interest of the health and lives of Georgia's citizens.

A department of field sanitation was established April 20, 1910, and this work was continued for five years.

Georgia was the first state in the Union to pass a law requesting the registration of births, in 1823. This record, however, is not held by Georgia in regard to laws requiring the registration of deaths, as 17 states passed such laws before Georgia did. Under the pro-

visions of the birth registration law of 1823 the clerks of the courts or ordinaries were required to register the names and date and place of the birth of all persons reporting themselves to them or who might be reported by their parents or guardians.

The first law requiring the registration of births and deaths passed by the General Assembly was in 1875. Under this law the physicians were required to file certificates for each birth and death, attended by them, with the ordinary of the county in which the birth or death occurred. From time to time up until 1926 controversy arose concerning the constitutional legality of a vital statistics law. At the extraordinary session of the Legislature in 1926 a bill was passed proposing an amendment to the Constitution legalizing the payment of a fee by counties for the collection and filing of vital statistics. This amendment was ratified at the general election in November, 1926.

The Division of Venereal Disease was established in June 1918 and we have witnessed a growth of the venereal disease program to a point where there is but little, if any, excuse for the venereal disease patient being without adequate treatment administered either through one of the 46 recognized venereal disease clinics in as many towns and cities or by the individual's family physician in cooperation with the State or county departments in the control of venereal disease.

The Division of Child Hygiene was established in May 1920 and the Division of Sanitary Engineer was organized the same year, and I call to your attention the Division of Tuberculosis control, the State Tuberculosis Sanatorium, the Division of Epidemiology, the Division of Dental Hygiene, the Division of County Health Work and County Public Nursing Service, all of which through the years have combined their efforts in scientific research and sound public health practices in a serious endeavor to raise Georgia's health status above that of any state in the Union.

How well are these efforts rewarded? If the death rate in Georgia for 1938 had remained the same as that in 1903 for the registration area, there would have been sixteen thousand more deaths than actually occurred. From 1900 to 1938 we have seen the crude



death rate reduced from 1219.1 to 1084.5; the typhoid fever death rate reduced from 79.9 to 3.9; the malaria death rate reduced from 55.5 to 4.7; the diphtheria rate reduced from 37.1 to 3.4; the tuberculosis death rate reduced from 128.1 to 52; the dysentery death rate reduced from 35.3 to 6.2; the diarrhea and enteritis death rate reduced from 65.8 to 28.4 and the infant mortality rate reduced from 82.1 to 67.7. For each death prevented, many times the number of illnesses have been prevented.

"Preventive medicine dreams of a time when there shall be enough for all, and every man shall bear his share of labor in accordance with his ability, and every man shall possess sufficient for the needs of his body and the demands of health. These things he shall have as a matter of justice and not of charity. Preventive medicine dreams of a time when there shall be no unnecessary suffering and no premature deaths; when the welfare of the people shall be our biggest concern; when humanity and mercy shall replace greed and selfishness; and it dreams that all these things will be accomplished through the wisdom of man. Preventive medicine dreams of these things, not with the hope that we, individually, may participate in them, but with the joy that we may aid in their coming to those who shall live after us." These words were written by the distinguished author, Dr. Milton Rosenau.

We have not experienced the full realization of these dreams. We are conscious that a large number of people have become charges on society because of ill health and know that in the future others will be so incapacitated. In a majority of instances these could have been, and can in the future be prevented by measures already known to medicine and the allied sciences. During the past two years we have experienced the greatest expansion of public health services ever known for a like period in our State, and yet today we have one hundred five counties without the services of a local health unit. The residents of these counties are entitled to preventive medicine as a matter of justice.

Political economists tell us that taxable values of less than four million dollars cannot adequately support all the necessary governmental functions and we have one hun-

dred and thirty-three counties which come below that minimum. This being true, it appears that future expansion depends upon the degree to which counties are willing to participate in local levies and subsidies being provided from State funds until such a time when assessed values are increased by improved economic conditions or through consolidation of counties which will increase taxable value and at the same time reduce governmental expenditures.

We feel discouraged at times and progress appears slow. Progress is slow and can only be measured by generations. We have a fairly accurate history of the world for as long as four thousand years B.C. Quoting from a recent address of an outstanding educator, "Geologists tell us that this world is millions of years old and is yet in a formative period and natural processes are unfinished. The Almighty then has been a million years doing a good job so why does it behoove mere man to hurry and worry?" Our program does cost money and we see the need of more but until it is provided we must continue doing the best we can with what we have, to proceed cautiously, to insure the greatest return upon the investment, to adopt new principles and procedures when to our complete satisfaction that they meet new conditions and offer at least reasonable hopes of advancement.

During recent years there has been much publicity concerning the medical care of the American people. We as health workers are deeply concerned about the medical care of the sick. May I quote Dr. Arthur T. McCormack, past president of the American Public Health Association: "What shall we do about medical service for those who are ill? I would urge that we make it our first objective to do well what has already been assigned to us by the common consent of all the people, with the approval of the medical profession, in the public health field. We should oppose, at all hazards, the socialization of medicine. We should give every assistance to those of our profession engaged in the practice of curative medicine in the solution of their problem of medical care of the indigent and of those only partially able to bear the cost of illness. The medical profession of America has proudly carried on the traditions which have been

handed down from leader to leader since the days of Hippocrates. Sometimes the banner of science has seemed to be beyond the horizon of those who most needed its encouragement; but it has always been found again and borne aloft by succeeding generations of those who have given this great service to mankind."

Let us always remember that the medical profession of Georgia is fully aware of its responsibilities. The medical group of this organization should never forget that we are members of the medical profession, that we ourselves are physicians and that we are proud of this fact and it is through the past and present leaders and teachers in the medical field that we have been able to attain our present knowledge. We have entered in the field of public health which is a specialty in the field of medicine. The medical care of the sick is always best attended by the family physician, whose training especially adapts him to the diagnosis of an individual sickness. His training likewise especially fits him to the application of curable remedies for the individual case. We as health officers are especially trained in the diagnosis of community health conditions and our training especially adapts us to the application of remedies for the improvement of the physical conditions of the community as a whole. Curative medicines and preventive medicines are two phases of practice, which even though intimately related, constitute different techniques and different responsibilities. Working together we have seen many noteworthy accomplishments and in the years to come we may reasonably expect to witness the culmination of our ideals.

We pay tribute today to the Engineering Section in recognition of the splendid program developed by it. It is the engineer who has removed many lurking dangers from our countryside and has replaced instead adequate sanitation. It is he who pioneers the mosquito control program in Georgia and it is common knowledge that Georgia today has one of the best mosquito eradication and malaria control programs in the United States. We look to the engineer for the improvement in water supplies, improvement of sewerage disposal system, swimming pool protection, physical improvements of food-handling establishments and other duties too numerous to mention. Without the services

of the Engineering Department, the public health program in Georgia cannot be completed. It is to be remembered that the public health engineer is a specialist in a broad field of engineering and that there should be a close relationship maintained between the sanitation engineer and the other branches of the engineering profession.

The program of the Public Health Nurse is far too well known to need any comment. However, should we fail to recognize them, it would be a failure to honor a group of our best friends. With the nurses rest the responsibility, primarily, of conducting the Maternal and Infant Hygiene program, home care of tuberculosis; the crippled children service; a large percentage of the immunizations and school work, and the many other duties placed upon their shoulders.

Not only to the physicians of Georgia, the health officers, nurses, and engineers do we pay tribute today, but to the public health stenographers and clerks, the dentists; educators; the newspapermen and all others who have labored and toiled unselfishly and have given their time and talents to the advancement of public health.

After all, the citizens of Georgia must determine to what extent our work is advanced and it is they who must, in the final analysis, determine whether they want to be freed of the economic losses entailed as a result of preventable illnesses. They must determine the amount of freedom from tuberculosis, syphilis, malaria, crippling diseases, cancer and mental diseases that we shall enjoy.

In closing I thank each member of the Georgia Public Health Association for your loyalty and for your untiring labor in the maintenance of our ideals. May we unite our efforts and reconsecrate ourselves in that spirit of service portrayed by the life of the Great Physician, remembering that no duty surpasses that of building stronger bodies in which to house sounder minds which may be better educated to labor more effectively and to live longer and more abundantly.

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"There is no evidence indicating that human twins are any more sterile than singly born persons," declares *The Journal of the American Medical Association* for June 17. "The idea about sterility in twins comes from the freemartin situation in cattle. There is no such situation in human beings."

## THE PRESIDENT'S PAGE

## MORTALITY FROM APPENDICITIS

Fifty-three years ago Reginald Fitz first called attention to the necessity of early operation in cases of acute appendicitis. He showed that perforation and resultant peritonitis were the causes of mortality incidental to this disease. However, general acceptance of his teachings has not eliminated appendicitis as a major cause of death. Instead of the death rate from this condition falling, as was to be expected, in the last three decades, it has actually risen, a fact not easily explained.

It has been demonstrated that removal of a normal appendix, or one in the earliest stages of inflammation, can be done without any appreciable death rate. Then why do so many deaths occur when early removal of the appendix would be followed by practically no mortality?

The increase in the death rate from appendicitis, as shown by Horsley, Fitz, Krech and others, is not uniform. During certain periods and in certain localities, there are marked variations in the incidence of this disease. Krech observed that six large American cities had an increase of 2.7 per hundred thousand during the year ending 1936, as compared with another large city with an increase of 9. This is a strange commentary on our efforts to educate both the profession and the public. It would seem that the large cities, where facilities are the best, would most effectively receive such education. Although our educational campaigns have not brought about the results that were expected, we must continue our efforts along this line.

The physician must recognize the possibility of appendicitis even where the blood picture is normal and there is a total absence of classic symptoms and signs. Under doubtful circumstances, the only way to reduce the incidence of death is to remove the appendix. The danger is then negligible and the cost minimal in comparison. If the appendix is found to be entirely normal, no chagrin should be felt, for the error is made on the side of safety, and the expense is cheap life insurance.

Some forty years ago Ochsner taught that delayed operation was sometimes advisable. We recognize the importance of a non-operative course in patients seen late and who are



already profoundly ill from peritonitis, but these cases are exceptional, and their occurrence should be prevented if possible.

Unfortunately there has been a revival of the Oschner teachings, and some physicians think that delay is permissible. This course no doubt accounts for some of the increased mortality.

Birnie says this idea has penetrated the medical schools and that many interns believe there are two courses to pursue in acute appendicitis: one *immediate*, and the other *deferred* operation. Fitz taught, and Osler himself believed that appendicitis is *never* a medical case.

Some have tried to explain the unsatisfactory mortality statistics in appendicitis by stating that the country and small town physicians are at fault. But if the records in Boston and other large cities are reviewed, it will be seen that the larger cities have the highest rate. In a series of 100 consecutive cases of acute appendicitis admitted to the Boston Children's Hospital, only 28 were sent in within twenty-four hours of onset of pain. All the deaths which occurred were among the 72 who were admitted twenty-four hours or more after onset of pain.

If we expect to improve this situation, we must continue to urge the public to give no purgatives to a patient with abdominal pain, and insist that a physician be called immediately, emphasizing the possibility of appendicitis being present under these circumstances. Physicians must keep in mind these facts: that there is no medical or conservative treatment for acute appendicitis.

WILLIAM H. MYERS, M.D.



# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

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## APPENDICITIS

The first record made of inflammation of the appendix was in 1759 when Mestivier, a French physician, opened a large abscess in the right abdomen of a patient and evacuated a pint of pus. Later he found at autopsy a rusted pin in the perforated appendix. The term "appendicitis" was first applied to inflammation of the appendix by Reginald Fitz of Boston in 1886. Prior to that time patients suffered, and often died, of so-called "inflammation of the bowels," "congestion of the bowels" or "cramp colic." McBurney of New York, in 1889, urged early operation for inflammation of the appendix, as did John B. Murphy of Chicago.

The location of the appendix varies to some extent in different individuals depending upon whether the cecum is located low or high, whether it is movable or bound down; in rare cases whether the viscera rotated normally, and in some instances of transposed viscera it is even found on the left side. As a rule, however, it is located under McBurney's point which is approximately one-half way between the umbilicus and the iliac spine.

The size of the appendix also varies greatly. Usually it is the size of a goose quill and is two and one-half to three inches long; in children it is not only proportionately but actually longer and larger than in adults because it undergoes involution and becomes smaller with age. I have seen one patient in whom the appendix was ten inches long and I have read one case report in which it was said the appendix was eleven and one-half inches long. The blood supply is received through the appendiceal artery, a branch of the superior mesenteric, and reaches the appendix through its mesentery. The return flow through the vein finally empties into the portal circulation, an important point to remember because in gangrenous cases thrombosis of the veins may occur with infection extending to the portal circulation, and death

may occur as result of thrombophlebitis of the portal veins.

The physiology of the appendix is questionable, but it is presumably a rudimentary and functionless organ. It is supposed to have been at one time a continuation of the cecum or colon, and still is in some of the lower animals who feed entirely upon vegetables and have need for more colon. In the human being, since we stopped going on all-fours and eating grass like an ox and began to live on polished rice and out of tin cans, we do not have need for so much colon and the appendix has undergone a process of involution or shrinkage, which has lowered its vitality, lessened its blood supply and made it more susceptible to infection and inflammation.

The causes of appendicitis are predisposing and determining. The predisposing cause is first its poor blood supply and thus its lowered vitality. Its determining cause is the presence of stasis, foreign bodies, including fecaliths; infectious diseases, intestinal parasites and bacteria.

Appendicitis is a disease of young adult life, but is found occasionally in both extremes of life—infants and the aged. It is about equally distributed between the two sexes. It is more prevalent in the white race than the colored, probably due to the difference in the food which plays an important part in regular habits. In many instances there is apparently a definite family susceptibility to this condition. Stasis may be caused by kinks or twists which interfere with the circulation. Fecaliths develop as result of stasis and become hardened and produce an irritation with recurrent mild attacks of inflammation until finally the mucous membrane, ulcerated due to pressure, permits infection to enter the wall of the appendix producing edema and at times thrombosis of the vessels resulting in gangrene and perforation. There are many cases on record where worms have been found in the appendix and undoubtedly they were a causative factor in producing the inflammation; sometimes it is pin worms but *ascaris lumbricoides* have been found in the appendix at operation, and they have even been found in the peritoneal cavity after having crawled through a perforation in the appendix. I believe traumatic appendicitis is rare.

The pathology of appendicitis and its classification are divided into acute and chronic. The acute type may be catarrhal, interstitial, ulcerative (perforative and non-perforative) suppurative and gangrenous. The chronic type shows the end results and is not active; it may also be catarrhal, interstitial or obliterative. There are also mucous cysts of the appendix. Tuberculosis and carcinoma of the appendix are rare. Time and space forbid my taking up each of the above classifications in detail.

The symptoms of appendicitis vary in different individuals, but generally speaking the acute attack begins with pain, cramping in character and beginning in the epigastric region, usually followed in a short time by nausea, and perhaps vomiting; and tenderness over the region of the appendix with rigidity of the right rectus muscle. There may be a slight fever in late cases, but the majority of my patients have had no fever. If there is much fever you can usually rule out appendicitis except when peritonitis has developed. Usually there is a leukocytosis from 10,000 to 15,000 and in cases where the infection has spread to the peritoneum the count may be even higher. The amount and character of the pain may vary greatly, but it practically never begins in the right side, except in those patients in whom previous attacks have been experienced, with resulting adhesions or where there is a congenitally retrocecal appendix; in these two instances pain may begin in the right side or even in the back, but in all others it will begin in the epigastrium, around the umbilicus or is general over the abdomen, until it becomes localized in the right side. Pain is always present while the other symptoms may be absent. Nausea is present in 75 to 80 per cent, but may be slight or absent, especially in children. In those instances where the appendix is located in the pelvis rigidity may be absent, fever is most frequently absent, except in late cases; leukocytosis may be slight or absent and the count may be normal or there may even be a leukopenia in those persons with lowered vitality, which is a bad sign and points to an unfavorable prognosis. In examining a patient suspected of having appendicitis have the patient rest on his back with knees flexed and arms by his side. Palpate all other areas before approaching Mc-

Burney's point; handle the patient gently, as rough handling has a tendency to produce a protection rigidity. In children or in adults who have an absence of rigidity and tenderness the examiner should always make a rectal examination as in this way a pelvic appendix can often be located. Some authorities state that constipation accompanies acute appendicitis. I have not always found this to be true and came near losing the daughter of one of my best friends several years ago by prescribing over the telephone for a diarrhea with cramps, nausea and vomiting. Since then I have also found that acute appendicitis frequently accompanies an attack of acute colitis.

The diagnosis of "chronic appendicitis" has been questioned by many authorities, but so far as I personally am concerned it is a definite entity and is manifested in two ways: first, by recurrent mild acute attacks over a long period of time; this is especially true in those instances where there is a fecalith present causing a mild attack which subsides and recurs until there is finally a severe attack with rupture. This type of appendicitis probably should be called "recurrent appendicitis." The other type is where there have been acute attacks producing adhesions and chronic inflammation, which are responsible for a certain amount of discomfort and disability in the right side. These cases often flare up again resulting in an acute attack with perforation. Then there is the typical chronic fibrosed appendix, sometimes referred to as appendicitis obliterans, which is often seen and at times removed along with other pathologic conditions, and which probably would never become acute.

The differential diagnosis of acute appendicitis must necessarily be made between a diseased appendix and many other conditions, some rare and some not so rare, such as lead poisoning, acute salpingitis, ruptured tubal pregnancy, ruptured graafian follicle with hemorrhage, ruptured peptic ulcer, acute inflammation of the gallbladder, acute pancreatitis, kidney colic, ureteral colic, pin worms in children, gastric crises of tabes, herpes zoster, epididymitis, pneumonia with diaphragmatic pleurisy, pyelitis, intussusception, diverticulitis, regional ileitis, ovarian cyst with twisted pedicle, entero-colitis and "black widow" spider bite.

The treatment of appendicitis should never be considered a medical problem, because no one can tell in advance just how serious the attack may become and the responsibility is too great to postpone surgical treatment. I believe that 80 per cent of the patients with acute appendicitis would recover from a given attack without surgery, but can we afford to jeopardize the lives of the other 20 per cent by waiting? There should be no mortality at all with the surgical treatment of appendicitis if all patients were operated upon early, but the mortality is entirely too high at the present time, and it is due to two things: first, giving of purgatives which frequently cause violent peristalsis and perforation; and second, procrastination. Many patients recover from attacks without ever seeing a doctor and some think they even do better without medical treatment. In doubtful cases, one should be put to bed without food and an enema may be used, but no purgatives. By all means never give a patient with abdominal pain a hypodermic of morphine as that relieves the pain and masks all symptoms, and frequently when a patient awakes from a morphine-produced sleep, the appendicitis has progressed too far for the patient to be saved even by surgery. The surgeon rarely sees acute appendicitis in small children, except in severe cases. Mild attacks are not diagnosed as appendicitis but are called "stomach-ache" and are treated either by the mother, the pediatrician or family physician and if they recover it was simply a stomach-ache, but if it develops into a severe attack of appendicitis, then the surgeon is called but often too late.

I will not go into the technic of the operation, but wish to refer briefly to postoperative treatment. If the appendix had not ruptured at the time of operation postoperative treatment is simply rest, lack of diet, efforts to maintain fluid balance, and the use of enemas for distention, but if the appendix had ruptured then a Levine tube inserted through the nose into the stomach and attached to a Wangenstein negative pressure apparatus to decompress the stomach and intestinal tract is a life saver. At the same time one should give saline and glucose intravenously and subcutaneously to maintain the fluid balance and to nourish the patient. Hot stupes should be used on the abdomen if

it is distended, and the use of enemas. In some instances we give pitressin or other agents to stimulate peristalsis when we think they are indicated. The mortality after operations for appendicitis in individual series of competent surgeons is very small, but still there is a large number of people who die annually following operations for appendicitis in Georgia. T. C. DAVISON, M.D.

#### SYPHILIS CONTROL

The U. S. Public Health Service in a release quotes from an article entitled *The Outlook for Syphilis Control* by Dr. Louis Pearce, Rockefeller Institute of Medical Research, Princeton, N. J., as follows: "The ledger for syphilis control at the present time shows a profit. To keep the account on the right side of the balance sheet 'will necessitate the sustained expenditure of enormous amounts of thought, of care, of time, and of money. The most important single step in the eradication of syphilis is the prosecution of research. More detailed information of the organism causing syphilis is needed, as is the development of a means of immunization and more effective treatment measures. In an effort to strike a "trial balance" in regard to syphilis control, major credit items are listed as (1) 'the sound attitude toward the whole question of health which the people of this country are beginning to take... a gradual growing positive attitude of active interest and concern'; (2) 'the widespread utilization of educational opportunities'; (3) 'the enormous available wealth of this country'; (4) 'our knowledge of syphilis and of the various therapeutic agents.' 'On the debit side of the ledger is included (1) 'problems of a heterogeneous population in respect to the development of educational programs, and the problems of training physicians; (2) problems of administration and best ways of establishing and enlarging present facilities; (3) research; (4) development of shorter and more simple methods of treatment."

Until recent years it was thought by the laity that there was no real remedy for seasickness, that it was necessary to endure it and to console one's self that no one ever dies of it, according to the U. S. Public Health Service. But a variety of remedies are reputed to be efficacious in many cases while in the rare instances the complete prostration accompanying severe seasickness may cause death through exaggerating existing organic disorders. An intelligent understanding of the prevention and cure of this bane of ocean travel is necessarily based on consideration of the mechanism of the malady. It is not an imaginary ailment, as may be for that matter, certain animals—dogs, horses, and elephants suffer with similar symptoms. Many humans enjoy seeming immunity, as do cats, as a family group.

The ninety-first annual session of the Medical Association of Georgia will be held in Savannah, April 23-26, 1940. Titles for papers to appear on the scientific program may be submitted to the Secretary-Treasurer at any time.



# GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

## ISN'T THERE SOMETHING WE CAN DO?

We have in Georgia a problem which evidently must be attacked differently from the methods used in the past. That is to say, we must exert a more concerted effort to rid our State of diphtheria.

In Georgia during the past five years 109 persons have died from infantile paralysis, a disease for which we have neither a preventive nor therapeutic agent. While, during this same period of time, 686 Georgians (mostly babies) have died from diphtheria, a disease for which we have both a specific prophylactic and a specific therapeutic agent (if used early in the disease).

The best way to treat diphtheria is to prevent it by the immunizing of all babies at about six months of age. To do this every physician in Georgia must lend a helping hand in urging his patients to have all babies immunized. To make this program go over and eliminate diphtheria from the causes of death in Georgia we must educate the public to the value of preventive measures. There is much indifference and superstition regarding immunizations which we must overcome. Indifference and superstition are forms of ignorance and the remedy for this is education.

cancer, heart and kidney diseases may result in many complete cures and in practically all cases life may be prolonged. In this campaign of education of the public to the value of preventive medicine the physician must be assisted by the health workers, newspapers and organizations such as civic and women's clubs.

Public interest in such matters can be obtained. Take for instance the Infantile Paralysis Research Work and the Women's Field Army for Cancer Control. The family physician must lead the way, he is the man around whom a patient's medical world revolves. His word and opinions are accepted above all others in regard to medical problems. The family physician should receive every possible aid in this educational program from the public health workers, the local clubs and organizations, the local newspapers and others who may be interested in helping make Georgia a better place to live.

In no way do I mean to blame the physicians of Georgia for the diphtheria deaths that occur. Because, in practically all cases the physician is not called until the disease has progressed beyond the point of being helped by diphtheria antitoxin, as this therapeutic agent must be given early and in sufficient dosage to neutralize the toxin produced by

THE NUMBER OF DEATHS AND DEATH RATES PER 100,000 POPULATION FROM DIPHTHERIA FOR THE TWO FIVE-YEAR PERIODS, 1934-1938 AND 1929-1933 BY TOTAL, WHITE AND COLORED, FOR THE STATE OF GEORGIA

FIVE YEAR PERIOD 1934-1938							FIVE YEAR PERIOD 1929-1933						
Year	Deaths			Death Rates			Year	Deaths			Death Rates		
	Total	White	Col.	Total	White	Col.		Total	White	Col.	Total	White	Col.
1938	106	74	32	3.4	3.7	2.9	1933	187	152	35	6.3	8.0	3.2
1937	108	66	42	3.5	3.4	3.8	1932	169	139	30	5.7	7.4	2.8
1936	123	83	40	4.0	4.3	3.6	1931	158	122	36	5.4	6.6	3.3
1935	161	116	45	5.3	6.0	4.1	1930	135	102	33	4.6	5.5	3.1
1934	188	152	36	6.3	8.0	3.3	1929	183	139	44	6.3	7.6	4.1
Total	686	491	191	..	..	..	Total	832	654	178	..	..	..
5 Year Average	137	98	39	4.5	5.0	3.5	5 Year Average	166	130	35	5.7	7.0	3.3

In this educational program the family physician must assume the leading role. He must take advantage of every opportunity to instruct his patients as to the value of preventing disease and death. He should encourage immunizations, going to bed and calling a physician at onset of illness, and periodic physical examinations. In so doing practically all deaths from preventable diseases will be eliminated and the early diagnosis and treatment of conditions such as tuberculosis,

the disease before its damage is done. The physician called to see the child after it has become toxic has been robbed of his only useful weapon for fighting this disease.

Let's eliminate those long, weary, dreary, dreadful hours of watching and waiting, hoping and praying for parents by protecting the child by immunization, then we will have done away with scenes where panicky parents of a child desperately ill with diphtheria make remarks such as "Isn't there something

we can do?" "Doctor, please do something for our baby" and "Why don't you do something?"

We can do something. We must do everything we can to bring about further reductions in Georgia's diphtheria death rate. This rate is on the decline in our State, reaching the lowest level yet recorded in 1938, when it was 3.41 per 100,000 population. Our diphtheria death rate in 1937 was 3.5 as compared with 2.0 for the United States. Vaccination eliminated smallpox, now let's eliminate diphtheria by immunizing all babies at about six months of age. This will come only with the education of every parent and would be parent in our State to the value of protecting their child or children against this disease.

D. M. WOLFE, M.D., *Director,  
Division of Information and Statistics.*

The Hamilton Wright Organization states that 21,000,000 Italians are insured against tuberculosis.

### BROMIDE INTOXICATION IS NOW COMMON IN ALL PARTS OF THE UNITED STATES

Bromide intoxication, resulting in mental aberrations, has become a common condition, and, judging from the hundreds of cases which have been reported, it is prevalent in all parts of this country, Lewis P. Gundry, M.D., Baltimore, declares in *The Journal of the American Medical Association* for Aug. 5.

Improper use of physicians' prescriptions by disregarding instructions and taking large frequent doses, and repeated refilling of a prescription which calls for a moderate dose of bromide, together with self-medication through the many proprietary medicines containing bromides, are the chief causes of the condition, Dr. Gundry says. As preventive measures, he recommends that all prescriptions should be marked "not to be refilled" and that the public be warned against self-medication.

Patients with chronic alcoholism are particularly prone to develop bromide poisoning, as such persons frequently take excessive doses of any medication. Several patients in the series of fifteen reported by the author literally substituted bromide solutions for alcohol at the end of a spree.

The severity of the symptoms is closely related both to the personality and to the physical well being of the patient.

Describing the mental symptoms of bromide poisoning in his series, Dr. Gundry states: "The patient was often uncooperative, noisy and even actively combative. The mood varied from one of elation to one of abject fear or terror. The speech was usually thick and jumbled; it was slurred to such an extent as to be almost unintelligible in some cases. There were many delusions and hal-

lucinations; the patient frequently carried on confused conversations with imaginary persons on the ceiling or saw large men and animals of all descriptions. He frequently believed that he was to be executed or that some members of his family had been killed. Complete disorientation was often observed, and defective memory with a tendency to confabulation was noted in several instances. In cases of such severe intoxication there was usually a lethargic or semicomatose state. At times delirium was present."

Determination of the bromide in the blood is an absolutely indispensable aid in confirmation of the diagnosis of this condition, the author declares. Such a determination should be done as a routine in any case of a toxic, confused mental state or of coma of unexplained origin. In cases of severe bromide intoxication this test should be repeated at frequent intervals to determine the results of treatment.

The mortality from bromide intoxication alone is very low. In the many hundreds of cases which have been reported in recent years, only seven fatalities have been noted; this constitutes a mortality well under 1 per cent.

Recovery from the symptoms of bromide poisoning requires from one to six weeks, depending largely on the severity of the intoxication. It is noteworthy, however, that an underlying psychosis was found in three of the patients and that there has been a recurrence of drinking in several of those with chronic alcoholism.

Because chloride replaces bromide in the body and promotes its elimination by the kidneys, sodium chloride, or salt, is a specific in the curative treatment of bromide intoxication, the author states. This inexpensive medication is most easily given by mouth in capsules.

### BOOK REVIEW

*Medicolegal Phases of Occupational Diseases*, by C. O. Sappington, A.B., M.D. Published by the Industrial Health Book Company, Chicago, 1939.

This book is divided into four parts, containing chapters covering the industrial, insurance, medical, and legal phases concerning the occupational diseases. The author writes with considerable clarity, and does not enter into argumentative situations; but, instead gives a brief statement of the pertinent facts in each chapter. The book will be valuable, not only to physicians, but to industrial organizations and insurance companies. Chapter five is of singular importance because it deals with disability in certain difficult diseases like silicosis, lead poisoning, monoxide gassing, mercury poisoning, etc. Appendix B cites a large number of abstracts of legal decisions which every industrial physician should read. This book is a good and much needed one.

JACK C. NORRIS, M.D.

## WOMAN'S AUXILIARY : OFFICERS 1939-1940

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### OBJECTIVES

The objectives of the Woman's Auxiliary to the Medical Association of Georgia for 1939-40, as approved by Dr. William Myers, president of the Association, and the Advisory Committee from the Association, are as follows:

#### *For Members*

1. Endeavor to attend Auxiliary meetings regularly, to pay annual dues promptly. Invite other eligible women to become members.

2. Familiarize yourselves with the aims and purposes of a Medical Auxiliary and the methods of organization. Know the names of County Adviser and Chairman of State Advisory Committee; the names of County and State Auxiliary Officers and Chairmen.

3. Accept chairmanships of health and welfare in other organizations, or any office which will advance Medical Auxiliary work.

4. Present the Health Education Program outlined for us by the Medical Association of Georgia to all lay organizations, the Medical Societies appointing speakers; the Auxiliaries supplying approved educational material. Inform and direct laymen about approved radio programs on health.

5. Be informed on current legislative matters sponsored, or endorsed by the Medical Association of Georgia, and acquaint others with them.

6. Read the Auxiliary pages of the Journal of the Medical Association of Georgia; read the Atlanta Constitution the first Sunday of every month and send articles for both to the State Chairmen. Send Auxiliary news items to County, District, and State Scrapbook Chairmen.

7. Endeavor to increase subscriptions to Hygeia, the only health magazine published by the American Medical Association. Enter the National Auxiliary Hygeia campaigns.

8. Assist in the entertainment of County, District, and State Medical meetings, and promote unity and friendliness at all times.

9. Assist your local Auxiliary in the preparation of an exhibit for the State convention.

#### *For Presidents*

1. Each County President and District Manager upon taking office should secure an Advisory Committee or Councilor, from her local Medical Society, and be guided in all activities by them.

2. County Presidents and District Managers on taking office should appoint chairmen corresponding to State, Southern, and National Auxiliaries if feasible, and send a list to the State President.

1. Organization.

2. Health Education.

3. Public Relations.

4. Press and Publicity.

5. Legislation.

6. Hygeia.

7. Scrapbook.

8. Health Films.

9. Doctors' Day.

10. Research in Romance of Medicine.

11. Historian.

12. Student Loan Fund.

13. Jane Todd Crawford Memorial.

14. Archives.

15. Exhibits.

3. County Presidents and District Managers please send new or corrected copies of their Constitution and By-Laws to the State President-Elect.

4. Arrange a health Educational program for each meeting of your Auxiliary. Suggestions for the programs and an outline of the duties of Committees should help you. Secure speakers through your Advisers.

6. Observe "Doctors' Day" March 30th. On this day honor the physicians who have dedicated their services to humanity and commemorate achievements of all physicians who have lived in Georgia.

7. Contribute to the Student Loan Fund and to the Health Film Library.

8. It is important that the local histories be recorded after each administration. Research in Romance of Medicine should be encouraged. Copies of all important papers of your Auxiliary should be sent to the Chairman of Archives.

9. State Chairmen will send their recommendations to you. Please give them to your Chairmen.

Make this a year of *individual responsibility* for Auxiliary success. Each effort, however small, will mean growth in Auxiliary influence and leadership, and assure another year of service to the Medical Association of Georgia.

MRS. EUSTACE A. ALLEN, *President.*

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 Waring, Mrs. Antonio J., 2912 Atlantic Ave., Savannah

Waring, Mrs. Thomas P., 10 West Taylor, Savannah  
 Williams, Mrs. Lehman W., 135 East 45th St., Savannah

Wilson, Mrs. S. Elliott, 624 East 44th St., Savannah  
 Watkins, Mrs. M. H., 603 Whitaker St., Savannah

*Toombs County*

President . . . . . Mrs. J. E. Mercer, Vidalia  
 Members

Findley, Mrs. C. W., Vidalia  
 Mercer, Mrs. J. E., Vidalia  
 Palmer, Mrs. J. W., Ailey

*Tatnall County*

*Member-at-Large*

Jelks, Mrs. L. R., Reidsville

SECOND DISTRICT

Manager . . . . . Mrs. H. T. Edmondson, Moultrie  
*Colquitt County*

President . . . . . Mrs. W. R. McGinty, Moultrie  
 Members

Brannen, Mrs. C. C., Moultrie  
 Brannen, Mrs. Cecil, Moultrie  
 Chestnut, Mrs. T. H., Moultrie  
 Funderburke, Mrs. A. G., Moultrie  
 McGinty, Mrs. W. R., Moultrie  
 Joiner, Mrs. R. M., Moultrie  
 Stigall, Mrs. Robert, Moultrie

*Dougherty County*

President . . . . . Mrs. W. S. Cook, Albany

*Members*

Buckner, Mrs. W. B., 820 Highland Ave., Albany  
Cook, Mrs. W. S., 312 Flint Ave., Albany  
Bacon, Mrs. A. S., 1101 N. Jefferson, Albany  
Barnett, Mrs. J. M., 531 Pine Ave., Albany  
Freeman, Mrs. Alex, 411 Society Ave., Albany  
Hilsman, Mrs. A. H., 206 N. Jefferson, Albany  
Irvin, Mrs. I. W., 1207 N. Madison, Albany  
Keaton, Mrs. J. C., 526 Pine Ave., Albany  
Lucas, Mrs. I. M., 910 N. Madison, Albany  
McKemie, Mrs. H. M., 1201 N. Davis St., Albany  
Neill, Mrs. F. K., Rawson Circle, Albany  
Redfearn, Mrs. J. A., 527 Broad St., Albany  
Rhyne, Mrs. W. P., Ergemar, Albany  
Sapp, Mrs. E. F., 816 N. Monroe, Albany  
Tye, Mrs. J. P., 413 Fourth St., Albany

THIRD DISTRICT

Manager..... Mrs. J. Cox Wall, Eastman  
*Dodge County*

President..... Mrs. J. Cox Wall, Eastman  
*Members*

Brindle, Mrs. L. A., Eastman  
Coleman, Mrs. Warren A., 301 W. 5th Ave., Eastman  
Massey, Mrs. W. F., Chester  
Parkerson, Mrs. I. J., Railroad Ave., Eastman  
Smith, Mrs. E. L., Eastman  
Tolleson, Mrs. H. M., Eastman  
Wall, Mrs. J. Cox, Eastman  
Yawn, Mrs. M. W. (deceased).

*Dooly County*

President..... Mrs. E. B. Davis, Byromville  
*Members*

Daves, Mrs. V. C., Vienna  
Davis, Mrs. E. B., Byromville  
Evans, Mrs. A. P., Unadilla  
Harris, Mrs. V. L., Pinehurst  
Malloy, Mrs. M. L., Vienna

*Macon County*

President..... Mrs. C. P. Savage, Montezuma  
*Members*

Derrick, Mrs. H. C., Oglethorpe  
Greer, Mrs. Chas. A., Oglethorpe  
Harp, Mrs. S. L., Marshallville  
Savage, Mrs. C. P., Montezuma

*Muscogee County*

President..... Mrs. W. C. Cook, Columbus  
*Members*

Berry, Mrs. Arthur N., 1617 Wynnton Dr., Columbus  
Blackmar, Mrs. Francis B., 1243 Forest Ave., Columbus  
Blanchard, Mrs. Mercer, 1543 Eberhart Ave., Columbus  
Brannen, Mrs. O. C., 1318 Stark Ave., Columbus  
Cook, Mrs. William C., 926 Benning Blvd., Columbus  
Cooke, Mrs. W. L., 2110 Oak Ave., Columbus  
Dillard, Mrs. Guy J., 1919 Flournoy Dr., Columbus  
Gaston, Mrs. Joseph H., 1409 4th Ave., Columbus  
Gilliam, Mrs. O. D., 1917 Dimon, Columbus  
Jenkins, Mrs. W. F., Dixon Dr., Columbus  
Johnson, Mrs. J. H., 2320 17th Ave., Columbus  
Jones, Mrs. W. R., 2408 18th Ave., Columbus

Murray, Mrs. G. S., Dinglewood, Columbus  
Norman, Mrs. Frank P., Wildwood Court Apt., Columbus

Schley, Mrs. Frank B., 1352 Peacock Ave., Columbus  
Spikes, Mrs. J. L., 1262 Peacock Ave., Columbus  
Thompson, Mrs. John B., 1400 Peacock Ave., Columbus  
Thrash, Mrs. J. A., Columbus  
Threatte, Mrs. Bruce, 1505 Eberhart Ave., Columbus  
Tillery, Mrs. Bert, 1544 Cherokee Ave., Columbus  
Walker, Mrs. John E., Green Island Hills, Columbus  
Willis, Mrs. J. N., 1240 Cedar Ave., Columbus  
Winn, Mrs. John H., 3 Park Drive, Columbus

*Randolph County*

President..... Mrs. Loren Gary, Jr., Shellman  
*Members*

Beason, Mrs. Lewis, Fort Gaines  
Crook, Mrs. W. W., Cuthbert  
Elliott, Mrs. W. G., Cuthbert  
Gary, Mrs. Loren, Sr., Georgetown  
Gary, Mrs. Loren, Jr., Shellman  
Harper, Mrs. T. F., Coleman  
Ingram, Mrs. H. R., Coleman  
Mantia, Mrs. J. M., Cuthbert  
Martin, Mrs. F. M., Shellman  
Massengale, Mrs. L. R., Cuthbert  
McCurdy, Mrs. E. C., Shellman  
Patterson, Mrs. J. C., Cuthbert

*Houston County*

*Member-at-Large*

Cater, Mrs. R. L., Perry  
*Sumpter County*

Pendergrass, Mrs. Robert, Americus  
Smith, Mrs. Herschel, Americus

FOURTH DISTRICT

Manager..... Mrs. Kenneth D. Grace, LaGrange  
*Troup County*

President..... Mrs. Kenneth D. Grace, LaGrange  
*Members*

Avery, Mrs. R. M., LaGrange  
Arnold, Mrs. E. T., Hogansville  
Callaway, Mrs. Enoch, 306 Broad St., LaGrange  
Clark, Mrs. W. H., Vernon Road, LaGrange  
Grace, Mrs. Kenneth, Broad Street Apts., LaGrange  
Hammett, Mrs. H. H., Gordon St., LaGrange  
Herman, Mrs. E. C., Gordon St., LaGrange  
Hadaway, Mrs. W. H., Vernon Road, LaGrange  
Holder, Mrs. J. S., Winsor Ave., LaGrange  
Lee, Mrs. R. O., Ridley Ave., LaGrange  
McCall, Mrs. W. R., Hill St., LaGrange  
Morgan, Mrs. D. E., Broad St., LaGrange  
Morgan, Mrs. J. C., West Point  
Newsome, Mrs. E. T., LaGrange  
O'Neal, Mrs. R. S., Gordon St., LaGrange  
Park, Mrs. E. R., Gordon St., LaGrange  
Phillips, Mrs. W. F., Broad St., LaGrange  
Rutland, Mrs. S. C., Ridley Ave., LaGrange  
Slack, Mrs. H. R., LaGrange  
Williams, Mrs. O. C., West Point

*Lamar County*

*Members-at-Large*

Corry, Mrs. J. A., Barnesville  
Willis, Mrs. C. H., Barnesville

## FIFTH DISTRICT

- Manager Mrs. George Williams, Atlanta  
*Fulton County*
- President Mrs. Forrest M. Barfield, Atlanta  
*Members*
- Allen, Mrs. Eustace A., 18 Collier Road, N. W., Atlanta
- Aven, Mrs. C. C., 2310 Gordon Road, S. W., Atlanta
- Agnor, Mrs. Elbert, 1302 North Morningside Drive, N. E., Atlanta
- Askew, Mrs. H. H., 1329 Springdale Rd., N. E., Atlanta
- Anderson, Mrs. Wm. W., 63 Avery Dr., N. E., Atlanta
- Anderson, Mrs. A. B., 1338 Briarcliff Rd., N. E., Atlanta
- Alden, Mrs. Herbert S., Roswell Rd., Atlanta
- Arthur, Mrs. J. Frank, 1181 Briarcliff Place, N. E., Atlanta
- Barfield, Mrs. Forrest M., 3106 Andrews Drive, N. W., Atlanta
- Baggett, Mrs. Leland G., 79 Brighton Rd., N. W., Atlanta
- Bailey, Mrs. M. K., 1149 Ponce de Leon Ave., N. E., Atlanta
- Barnett, Mrs. Crawford W., 900 Myrtle St., N. E., Atlanta
- Beasley, Mrs. B. T., 884 Virginia Ave., N. E., Atlanta
- Benson, Mrs. Marion T., 1040 Springdale Rd., N. E., Atlanta
- Benson, Mrs. H. Bagley, 3 Pine Circle, N. E., Atlanta
- Blalock, Mrs. John C., 124 West Wesley Rd., Atlanta
- Bivings, Mrs. Lee, 3110 Habersham Rd., N. W., Atlanta
- Blackman, Mrs. Wilbur, 248 W. Andrews Dr., N. E., Atlanta
- Boland, Mrs. Frank K., 252 Peachtree Circle, N. E., Atlanta
- Boland, Mrs. Chas. G., 120 Lindbergh Drive, N. E., Atlanta
- Brawner, Mrs. A. F., Smyrna, Ga.
- Brawner, Mrs. Jas. N., Sr., 2800 Peachtree Rd., N. E., Atlanta
- Bunce, Mrs. Allen H. (deceased), 368 Ponce de Leon Ave., N. E., Atlanta
- Burke, Mrs. B. Russell, 1996 Ponce de Leon Ave., N. E., Atlanta
- Burch, Mrs. J. C., 150 Anderson Ave., S. W., Atlanta
- Burgess, Mrs. T. S., 222 Westminster Drive, N. E., Atlanta
- Brown, Mrs. Stephen T., 1088 Oxford Rd., N. E., Atlanta
- Brown, Mrs. S. Ross, 1071 Oxford Rd., N. E., Atlanta
- Byrd, Mrs. T. Luther, 1752 N. Pelham Rd., N. E., Atlanta
- Boynton, Mrs. Chas. E., 119 Brighton Rd., N. W., Atlanta
- Childs, Mrs. J. R., 1965 Ponce de Leon Ave., N. E., Atlanta
- Collier, Mrs. T. J., 1781 Peachtree Rd., N. W., Atlanta
- Clark, Mrs. James J., 1081 Springdale Rd., N. E., Atlanta
- Crowe, Mrs. W. R., 1069 Virginia Ave., N. E., Atlanta
- Crawford, Mrs. J. H., 2512 Brookwood Drive, N. E., Atlanta
- Cathcart, Mrs. Don F., 1792 Flagler Ave., N. W., Atlanta
- Cofer, Mrs. Olin S., 948 Lullwater Rd., N. E., Atlanta
- Calhoun, Mrs. F. P., 2906 Andrews Drive, N. W., Atlanta
- Campbell, Mrs. J. L., 1315 Fairview Rd., N. E., Atlanta
- Curtis, Mrs. W. L., College Park
- Cooke, Mrs. Virgil, Baker's Ferry Road, Atlanta
- Davenport, Mrs. T. F., 1068 Peachtree Battle Ave., Atlanta
- Daniel, Mrs. Eugene, 230 Howard St., N. E., Atlanta
- Davison, Mrs. Hal M., 85 Avery Drive, N. E., Atlanta
- Davison, Mrs. T. C., 1414 Lanier Pl., N. E., Atlanta
- Daniel, Mrs. Chas. H., College Park
- Daly, Mrs. Leo P., 360 Ponce de Leon Ave., N. E., Atlanta
- Denton, Mrs. John F., 1503 Peachtree St., N. E., Atlanta
- Dew, Mrs. J. Harris, 2554 Peachtree Rd., Atlanta
- Dorough, Mrs. W. S., 344 Ponce de Leon Ave., Atlanta
- Dougherty, Mrs. M. S., 76 Brighton Rd., N. E., Atlanta
- Euen, Mrs. Murdock S., 2505 Habersham Rd., N. W., Atlanta
- Eubanks, Mrs. Geo. F., 224 Peachtree Battle Ave., N. W., Atlanta
- Fuller, Mrs. Geo. W., 1384 Fairview Rd., N. E., Atlanta
- Foster, Mrs. Kimsey E., College Park
- Fowler, Mrs. C. Dixon, 669 Cumberland Rd., N. E., Atlanta
- Fincher, Mrs. Edgar F., Jr., 2639 Parkside Dr., N. E., Atlanta
- Floyd, Mrs. Earl, Cheshire Bridge Rd., N. E., Atlanta
- Fuller, Mrs. J. R., 385 Tenth St., N. E., Atlanta
- Funkhouser, Mrs. W. L., 2419 Woodward Way, N. W., Atlanta
- Gay, Mrs. J. Gaston, Howell Mill Road, Rt. 7, Atlanta
- Gay, Mrs. T. Bolling, 76 Montgomery Ferry Drive, N. E., Atlanta
- Goodwyn, Mrs. T. P., 2480 Woodward Way, Atlanta
- Greene, Mrs. Edgar H., 156 Huntington Rd., N. E., Atlanta
- Hailey, Mrs. Howard, 67 Brighton Rd., N. W., Atlanta
- Hanner, Mrs. Jas. P., 39 Inman Circle, N. E., Atlanta
- Hall, Mrs. O. D., 545 E. Ponce de Leon Ave., Decatur
- Hardin, Mrs. L. Sage, 140 Vidal Blvd., Avondale
- Howard, Mrs. Charles, 1593 Rogers Ave., S. W., Atlanta
- Howell, Mrs. Stacy C., 2641 Acorn Ave., N. E., Atlanta
- Holden, Mrs. F. C., 1256 N. Morningside Dr., N. E., Atlanta
- Horton, Mrs. B. E., 1287 Oxford Rd., N. E., Atlanta
- Hodgson, Mrs. Fred J., 851 Clifton Rd., N. E., Atlanta
- Holmes, Mrs. Walter R., 85 Peachtree Circle, N. E., Atlanta
- Hunter, Mrs. Conway, 971 N. Highland Ave., N. E., Atlanta
- Huguley, Mrs. G. Pope, 14 Brookhaven Drive, Atlanta
- Hurt, Mrs. John S., 1655 Ponce de Leon Ave., N. E., Atlanta
- Jennings, Mrs. Jas. L., 683 Elkmont Dr., N. E., Atlanta



- Jernigan, Mrs. H. Walker, 826 Peachtree St., N. E., Atlanta
- Kiser, Mrs. Wm. H., 210 Peachtree Circle, N. E., Atlanta
- Klugh, Mrs. Geo. F., Jr., 591 Clifton Rd., N. E., Atlanta
- Klugh, Mrs. Geo. F., Sr., 395 Tenth St., N. E., Atlanta
- Kirkland, Mrs. Spencer A., 106 Peachtree Battle Ave., N. W., Atlanta
- Lange, Mrs. Harry, 1128 Oakdale Rd., N. E., Atlanta
- Lawrence, Mrs. Chas. E., 194 Feld Ave., Decatur
- Landham, Mrs. J. W., 4199 Club Drive., N. W., Atlanta
- Linch, Mrs. A. O., 943 Rosedale Rd., N. E., Atlanta
- Longino, Mrs. D. R., 1344 Lanier Blvd., N. E., Atlanta
- Lower, Mrs. Emory G., 742 Boulevard, N. E., Atlanta
- Lowance, Mrs. Mason, 877 W. Wesley Rd., Atlanta
- Lunsford, Mrs. Guy G., 948 Williams Mill Road, N. E., Atlanta
- Matthews, Mrs. O. H., 61 Barksdale Dr., N. E., Atlanta
- Martin, Mrs. Anthony J., Briarcliff Road, Atlanta
- Mestre, Mrs. Ricordo, 581 Martina Drive, N. E., Atlanta
- Minor, Mrs. Henry W., Peachtree Dunwoody Road, Atlanta
- Mitchell, Mrs. Wm. E., No. 3 Pine Grove Drive, Atlanta
- Monfort, Mrs. Merrell, 137 Club Drive, N. E., Atlanta
- Mosteller, Mrs. Ralph, 684 Durant Place, N. E., Atlanta
- Murray, Mrs. Geo. M., 999 Spring St., N. W., Atlanta
- Myers, Mrs. Martin T., 418 Sixth St., N. E., Atlanta
- McDaniel, Mrs. J. G., 743 Piedmont Ave., N. E., Atlanta
- McDougall, Mrs. Calhoun, 2899 Andrews Drive, N. W., Atlanta
- Nabors, Mrs. Dewey T., 2380 Dellwood Dr., N. W., Atlanta
- Nall, Mrs. J. D., 1029 Rosedale Rd., N. E., Atlanta
- Newberry, Mrs. R. E., 2160 Ponce de Leon Ave., N. E., Atlanta
- Niles, Mrs. Geo., Sr., Georgian Terrace Hotel, Atlanta
- Nippert, Mrs. Philip H., 2554 Peachtree Rd., Atlanta
- Noble, Mrs. Geo. H., Jr., 91 Park Circle, N. E., Atlanta
- Norris, Mrs. Jack C., 511 Peachtree Battle Ave., N. W., Atlanta
- Olds, Mrs. Bomar A., 95 West Wesley Rd., Atlanta
- Parker, Mrs. Francis, Wesley Road, N. W., Atlanta
- Pentecost, Mrs. Mark P., Pine Valley Road, Atlanta
- Powell, Mrs. Vernon, 10 Vernon Rd., N. W., Atlanta
- Perry, Mrs. Sam W., Briarcliff Hotel, Atlanta
- Paullin, Mrs. J. Edgar, 2834 Andrews Dr., N. W., Atlanta
- Pruitt, Mrs. M. C., Henry Grady Hotel, Atlanta
- Pittman, Mrs. J. L., Howell Mill Road, Atlanta
- Poer, Mrs. D. Henry, 67 The Prado, Atlanta
- Quillian, Mrs. Earle, 968 Ponce de Leon Ave., N. E., Atlanta
- Roberts, Mrs. C. W., 1085 St. Charles Place, N. E., Atlanta
- Rhodes, Mrs. C. A., 129 Brighton Rd., N. W., Atlanta
- Rogers, Mrs. J. Harry, 134 Huntington Rd., N. W., Atlanta
- Rushin, Mrs. Chas. E., 50 Camden Rd., N. W., Atlanta
- Reed, Mrs. Clinton, Henry Grady Hotel, Atlanta
- Roberts, Mrs. M. Hines, 1268 Piedmont Ave., N. E., Atlanta
- Rouglin, Mrs. L. C., 1017 St. Charles Ave., N. E., Atlanta
- Sauls, Mrs. H. Cliff, Howell Mill Road, N. W., Atlanta
- Sage, Mrs. Dan Y., 47 Inman Circle, N. E., Atlanta
- Shackleford, Mrs. B. L., 2665 Arden Rd., N. W., Atlanta
- Selman, Mrs. W. A., 760 Penn Ave., N. E., Atlanta
- Shanks, Mrs. E. D., 1431 Fairview Rd., N. E., Atlanta
- Smith, Mrs. Linton, 365 Mayson Ave., N. E., Atlanta
- Stewart, Mrs. Calvin B., 904 Peachtree St., N. E., Atlanta
- Shallenberger, Mrs. W. F., 104 Westminster Drive, N. E., Atlanta
- Smith, Mrs. W. A., 2956 Lennox Rd., Atlanta
- Smith, Mrs. Carter, 104 W. Wesley Rd., Atlanta
- Scarborough, Mrs. J. E., 34 Walker Terrace, N. E., Atlanta
- Schillinger, Mrs. E. N., Vet. Admin. Facility, Peachtree Rd., Atlanta
- Swanson, Mrs. Cosby, 10 Cherokee Rd., Atlanta
- Stampa, Mrs. Sam, Atlantan Hotel, Atlanta
- Sloan, Mrs. Weyman, 1282 Oakdale Rd., N. E., Atlanta
- Strickler, Mrs. C. W., Jr., 21 Brookhaven Drive, Atlanta
- Strickler, Mrs. C. W., Sr., 871 Oakdale Rd., N. E., Atlanta
- Turk, Mrs. L. N., 1516 N. Morningside Drive, Atlanta
- Turner, Mrs. John W., 157 - 17th St., N. E., Atlanta
- Upchurch, Mrs. W. E., Jr., 2774 Atwood Rd., N. E., Atlanta
- Upshaw, Mrs. C. B., 108 West Wesley Rd., Atlanta
- Van Dyke, Mrs. A. H., 2440 Peachtree Rd., N. W., Atlanta
- Williams, Mrs. Geo. A., 135 Montgomery Ferry Dr., N. E., Atlanta
- Willingham, Mrs. T. Irvin, 2788 Peachtree Rd., N. E., Atlanta
- Warnock, Mrs. C. M., 795 Frederica St., N. E., Atlanta
- Wood, Mrs. R. Hugh, 1657 Harvard Rd., N. E., Atlanta
- West, Mrs. C. M., 1659 Pelham Rd., N. E., Atlanta
- Wagnon, Mrs. B. H. (deceased), 331 Tenth St., N. E., Atlanta
- Waters, Mrs. W. C., Jr., 878 Virginia Ave., N. E., Atlanta
- Walker, Mrs. E. Y., 3528 Kingsboro Rd., N. E., Atlanta
- White, Mrs. Jno. Bonar, 769 Penn Ave., N. E., Atlanta
- Walker, Mrs. Exum B., 2090 N. Decatur Rd., Atlanta
- Warren, Mrs. Wm. C., 980 Briarcliff Rd., N. E., Atlanta
- Wright, Mrs. Ed S., Howell Mill Rd., N. W., Atlanta
- Yampolsky, Mrs. Jos., 746 Brookridge Drive, N. E., Atlanta

*Members-at-Large*  
*DeKalb County*

Allen, Mrs. Homer, Decatur  
Ansley, Mrs. H. G., Decatur  
Duncan, Mrs. G. A., Decatur

*Rockdale County*

Griggs, Mrs. Harvey, Conyers

**SIXTH DISTRICT**

Manager . . . . . Mrs. W. W. Chrisman, Macon  
*Baldwin County*

President . . . . . Mrs. C. H. Richardson, Milledgeville  
*Members*

Allen, Mrs. Dawson, Allen's Invalid Home, Milledgeville

Allen, Mrs. Edwin, Allen's Invalid Home, Milledgeville

Allen, Mrs. H. D., Sr., Allen's Invalid Home, Milledgeville

Anderson, Mrs. Sam A., State Hospital, Milledgeville

Binion, Mrs. Richard, 310 W. Green St., Milledgeville

Bostick, Mrs. W. A., State Hospital, Milledgeville

Bradford, Mrs. R. W., State Hospital, Milledgeville

Cary, Mrs. H. R., North Jefferson St., Milledgeville

Cox, Mrs. C. G., State Hospital, Milledgeville

Echols, Mrs. George, State Hospital, Milledgeville

Evans, Mrs. R. E., N. Clark St., Milledgeville

Fulghum, Mrs. Charles B., N. Jefferson St., Milledgeville

Garrard, Mrs. J. I., State Hospital, Milledgeville

Longino, Mrs. L. P., State Hospital, Milledgeville

Mays, Mrs. J. R. S., State Hospital, Milledgeville

Oden, Mrs. J. W., State Hospital, Milledgeville

Richardson, Mrs. C. H., N. Columbia St., Milledgeville

Scott, Mrs. W. M., W. Green St., Milledgeville

Walker, Mrs. N. P., W. Green St., Milledgeville

Woods, Mrs. O. C., N. Jefferson St., Milledgeville

Yarbrough, Mrs. Y. H., State Hospital, Milledgeville

*Bibb County*

President . . . . . Mrs. J. P. Holmes, Macon  
*Members*

Aldrich, Mrs. Fred N., Shirley Hills, Macon

Anderson, Mrs. James C., 106 Stanislaus Circle, Macon

Applewhite, Mrs. Joe D., 108 Avon Road, Macon

Atkinson, Mrs. Harold C., 206 Corbin Ave., Macon

Bashinski, Mrs. Benjamin, 120 Buford Place, Macon

Bazemore, Mrs. Wallace L., 127 Beverly Place, Macon

Boswell, Mrs. W. Charles, 106 Buford Place, Macon

Chrisman, Mrs. W. W., 112 Corbin Ave., Macon

Clay, Mrs. J. Emory, 116 Hines Terrace, Macon

Corn, Mrs. Ernest, 555 College St., Macon

Fountain, Mrs. James A., Shirley Hills, Macon

Golsan, Mrs. Willard R., 8-A, Massee Apts., Macon

Harber, Mrs. G. Dillard, Nottingham Drive, Macon

Harrold, Mrs. Charles C., 550 Orange St., Macon

Harrold, Mrs. Thomas, Jr., 567 College St., Macon

Holmes, Mrs. J. P., 252 Overlook Ave., Macon

Keen, Mrs. O. F., 506 Napier Ave., Macon

Kemp, Mrs. Paul S., 623 Vineville Ave., Macon

King, Mrs. J. Lon, 223 Buford Place, Macon

Mobley, Mrs. Walter E., Massee Apts., Macon

Moses, Mrs. Harry, 918 Vineville Ave., Macon

Newman, Mrs. W. A., 571 Orange St., Macon

Newton, Mrs. Ralph G., 217 Buford Place, Macon

Porch, Mrs. Leon D., 240 Riverside Dr., Macon

Phillips, Mrs. A. M., 109 Buford Place, Macon

Richardson, Mrs. Charles H., 359 Cherokee Ave., Macon

Richardson, Mrs. Rhea, 2516 Forsyth Road, Macon

Rogers, Mrs. T. E., 120 Clisby Place, Macon

Ross, Mrs. Thomas L., 359 Orange St., Macon

Rozar, Mrs. Allen Robert, Shirley Hills, Macon

Smith, Mrs. Allen, 106 Florida Ave., Macon

Thompson, Mrs. O. R., 206 Belvidier Drive, Macon

Walker, Mrs. D. D., 120 Stanislaus Circle, Macon

Ware, Mrs. Ford, 705 Ridge Ave., Macon

Wasden, Mrs. Charles N., 116 Buford Place, Macon

Weaver, Mrs. Hudnall G., 120 Galloway St., Macon

Weaver, Mrs. Olin H., 702 Ridge Ave., Macon

Williams, Mrs. W. A., 240 Stanislaus Circle, Macon

Woods, Mrs. C. J., Vista Circle, Macon

*Laurens County*

President . . . . . Mrs. C. A. Hodges, Dublin

*Members*

Beddingfield, Mrs. W. E., Rentz

Claxton, Mrs. E. B., Dublin

Coleman, Mrs. A. T., Dublin

Ferrell, Mrs. R. G., Jr., Dublin

Hodges, Mrs. C. A., Dublin

*Washington County*

President . . . . . Mrs. Fred B. Rawlings, Sandersville

*Members*

Cason, Mrs. W. M., Sandersville

Dillard, Mrs. J. B., Davisboro

Harris, Mrs. Eugene, Sandersville

Helton, Mrs. B. L., Sandersville

King, Mrs. W. R., Tennille

Lennard, Mrs. O. D., Tennille

Lozier, Mrs. N. H., Sandersville

Newsome, Mrs. Emory G., Sandersville

Newsome, Mrs. N. J., Sandersville

Overby, Mrs. N., Sandersville

Peacock, Mrs. E. S., Harrison

Rawlings, Mrs. F. B., Sandersville

Rogers, Mrs. O. L., Sandersville

Taylor, Mrs. R. L., Davisboro

Troutman, Mrs. W. C., Tennille

*Jefferson County*

*Members-at-Large*

Revell, Mrs. S. T. R., Louisville

**SEVENTH DISTRICT**

(unorganized)

*Members-at-Large*

*Gordon County*

Hall, Mrs. W. D., Calhoun

*Whitfield County*

Wood, Mrs. Lloyd, Dalton

**EIGHTH DISTRICT**

Manager . . . . . Mrs. Lewis Smith, Lakeland  
*Coffee County*

*Members*

Clark, Mrs. T. H., Douglas

Crovatt, Mrs. J. G., Nicholls

Goodwin, Mrs. Henry, Douglas

Goldman, Mrs. David, Braxton

Harper, Mrs. Sage, Ambrose

Jardine, Mrs. Dan A., Douglas

Johnson, Mrs. Roy L., Douglas

Wallace, Mrs. J. W., Douglas

*Ware County*

President . . . . . Mrs. Leo Smith, Waycross

*Members*

Bradley, Mrs. D. M., 629 Nichols St., Waycross  
 Bussell, Mrs. R. B., Euclid Ave., Waycross  
 Collins, Mrs. B., 902 Gilmore St., Waycross  
 DeLoach, Mrs. A. W., 501 Folks St., Waycross  
 Ferrell, Mrs. T. J., St. Mary's Drive, Waycross  
 Flanagan, Mrs. W. M., 410 Remshars St., Waycross  
 Folks, Mrs. W. M., Cherokee Dr., Waycross  
 Gay, Mrs. J. R., Homerville  
 Hafford, Mrs. W. C., 229 Riverside Dr., Waycross  
 Huey, Mrs. H. G., Homerville  
 Hendry, Mrs. G. T., Blackshear  
 Johnson, Mrs. R. L., 509 Nichols St., Waycross  
 Minchew, Mrs. B. H., 412 Williams St., Waycross  
 Mixon, Mrs. W. D., 619 Nichols St., Waycross  
 McCullough, Mrs. K., Satilla Drive, Waycross  
 Oden, Mrs. L. H., Blackshear  
 Penland, Mrs. J. E., 912 Elizabeth St., Waycross  
 Pierce, Mrs. L. W., 1003 Atlantic Ave., Waycross  
 Pomeroy, Mrs. W. L., Canal Road, Waycross  
 Reavis, Mrs. W. F., 1105 Satilla Drive, Waycross  
 Seaman, Mrs. H. A., Brunel St., Waycross  
 Smith, Mrs. Leo, 307 Kollock St., Waycross  
 Stephens, Mrs. C. M., 312 Hill St., Waycross  
 Walker, Mrs. J. L., 302 Gilmore St., Waycross  
 Walker, Mrs. R. C., 502 Gilmore St., Waycross  
 Walden, Mrs. K. C., 707 Haines Ave., Waycross  
 Witmer, Mrs. C. A., 501 Gilmore St., Waycross

*Members-at-Large*

*Lanier County*

Smith, Mrs. Lewis, Lakeland

*Telfair County*

Persall, Mrs. John, McRae

*Wayne County*

Tyre, Mrs. J. L., Screven

NINTH DISTRICT

Manager . . . . . Mrs. Alex Russell, Winder

*Barrow County*

President . . . . . Mrs. W. T. Randolph, Winder

*Members*

Adams, Mrs. Robert, Winder  
 Almand, Mrs. C. B., Winder  
 Harris, Mrs. E. R., Winder  
 Mathews, Mrs. W. L., Winder  
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 Randolph, Mrs. W. T., Winder  
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 Patton, Mrs. L. S., University Drive, Athens  
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 Smith, Mrs. S. S., Prince Ave., Athens  
 Talmadge, Mrs. Harry, Prince Ave., Athens  
 Simpson, Mrs. J. A., Cloverhurst Ave., Athens  
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 Teasley, Mrs. H. E., Hartwell

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 Battey, Mrs. William Whatley, Sr., 2239 Kings Way, Augusta  
 Bernard, Mrs. Guy Talmadge, 951 Meigs St., Augusta  
 Briggs, Mrs. Alfred Poynee, Colonial Court Apts., Augusta  
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 Mathews, Mrs. Walter Eugene, 3804 Lombardy St., Augusta  
 McGahee, Mrs. Robert Carey, 2701 Helen St., Augusta  
 Mealing, Mrs. Henry Getzen, 3 Forest Ave., North Augusta  
 Mulherin, Mrs. Charles, 2421 Walton Way, Augusta  
 Mulligan, Mrs. King Walker, 942 Green St., Augusta  
 Philpot, Mrs. William Kuhlke, 2151 Kings Way, Augusta  
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 Rhodes, Mrs. Robert Lewis, 2501 Bellevue Ave., Augusta  
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 Thompson, Mrs. Sedie Young, 1303 Monte Sano Ave., Augusta  
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 Torpin, Mrs. Richard, 1001 Russell St., Augusta  
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This roster includes all county Auxiliaries organized during the last fiscal year, except the Tift County Auxiliary which was unintentionally omitted, but will be printed in the next issue of *The Journal*.

#### NEWS ITEMS

A MODEL "SHACK" built by the Savannah Planing Mill Company, Savannah, has been donated to the Savannah Health Department and the Chatham-Savannah Tuberculosis Association. The "shack" may be used to house a tuberculous patient at his home and to secure the necessary isolation. The "shack" was put on display in Johnson Square, Savannah.

DR. THOMAS B. PHINIZY, Augusta, Richmond County health commissioner, in his fourth article written on the activities of the department and published in the Augusta Chronicle, was quoted as follows: "Fifty per cent of the women who die in pregnancy should be saved." The major portion of the blame for this was credited to the women themselves, many of whom will not have periodic examinations by physicians during pregnancy and will not attend maternal clinics.

MEMBERS OF THE Whitfield County Medical Society have examined over 400 members of the Dalton Boys' Club. The majority of the boys were found to be physically fit. Arrangements are being made to provide medical treatment and dental care for those in need of such service.

THE DEPARTMENT OF HEALTH of the State of New York writes to the Medical Association of Georgia under date of August 4, 1939, in part as follows: "The New York State Legislature in 1938 passed a law requiring a physical examination including a standard serological test for syphilis on all applicants for marriage licenses within the state. That part of the act as amended and effective July 1, 1939 referable to these examinations reads as follows: 'Physician's examination and serological test of applicant for marriage license. 1. Except as herein otherwise provided, no application for a marriage license shall be accepted by the town or city clerk unless accompanied by or unless there shall have been filed with him a statement or statements signed by a duly licensed physician or by a commissioned medical officer of the United States army, navy or public health service that each applicant has been given such an examination, including a standard serological test, as may be necessary for the discovery of syphilis, made on a day specified in the statement, which shall not be more than the thirtieth day prior to that on which the license is applied for.'

THE TENTH DISTRICT MEDICAL SOCIETY met at the Legion Hall, Elberton, on August 17. Titles of papers on the scientific program were as follows: *Skin Diseases*, by Dr. Frank R. Wrenn, Anderson, S. C.; discussed by Dr. G. T. Bernard, Augusta; *Fever Therapy*, Dr. J. Z. McDaniel, Augusta; discussed by Dr. J. Righton Robertson, Augusta, and Dr. Harry E. Talmadge, Athens; *Cardiac Neurosis*, Dr. Guy O. Whelchel, Athens; discussed by Dr. A. W. Simpson,

Athens, and Dr. D. R. Thomas, Augusta; *Vitamin E in Obstetrics*, Dr. Charles Mulherin, Augusta; discussed by Dr. Joseph Akerman and Dr. J. W. Thurmond, Augusta; *Surgical Gallbladder*, Dr. Ralph H. Chaney, Augusta; discussed by Dr. R. B. Weeks, Augusta, and Dr. H. W. Birdsong, Athens. A barbecue dinner was served at 1:00 o'clock before the scientific meeting opened.

THE GEORGIA WARM SPRINGS FOUNDATION, Warm Springs, announces the official dedication and opening of the three-story medical building on July 31. The building is equipped with modern appliances for the treatment of infantile paralysis.

DR. EUSTACE A. ALLEN, Atlanta, spoke on *Sulfanilamide* at a meeting of the Atlanta Optimist Club at the Davison-Paxon Tea room on August 15.

DR. GLENVILLE GIDDINGS, Atlanta, Governor for Georgia of the American College of Physicians, conveys an invitation from Dr. Charles F. Tenney, New York City, to all fellows and associates of the College to attend the twelfth annual graduate fortnight of the New York Academy of Medicine, 2 East 103rd Street, October 23 to November 3, during a symposium on *The Endocrine Glands and Their Disorders*.

THE NEXT MEETING of the Piedmont Post Graduate Clinical Assembly will be held at Anderson, S. C., September 19, 20, 21. Georgia physicians on the program include: Dr. V. P. Sydenstricker, Augusta, who will speak on *Incomplete Deficiency Syndromes*; Dr. Edgar R. Pund, Augusta, *Ovarian Tumors*; Dr. E. B. Saye, Spartanburg, S. C., formerly of Macon, *Tetanus*; Dr. Roy R. Kracke, Emory University, *The Effects of Analgesic Drugs on the Blood*. Dr. Jack C. Norris, Atlanta, is vice-president of the Assembly. Dr. J. R. McCord, Atlanta, professor of obstetrics of Emory University School of Medicine, held obstetric institutes throughout the state of South Carolina in 1935 under the auspices of the South Carolina Medical Association and the Children's Bureau of the United States. As a direct result of the success of these obstetric institutes there was a general demand for the post-graduate work to be extended beyond that of obstetrics which would cover most of the branches of medicine and surgery in which the busy physician must encounter in his daily practice. "The institution at Anderson has now been recognized and listed by the Council on Medical Education and Hospitals of the American Medical Association and enters upon its fifth year with the most comprehensive plans yet enjoyed." It is a signal compliment to Dr. McCord that through his original efforts and leadership such work has been and is yet being promoted.

LOCATION FOR PHYSICIAN in thriving country town of 1,500 population. Office space, water and lights, gratis. If interested, write secretary-treasurer.

DR. C. F. ENGELKING, Dalton, Whitfield county commissioner of health, held diphtheria clinics at Pleasant Grove, Tunnel Hill, Tilton and Dawnville, all in Whitfield county, during August.

The Georgia Industrial Surgeons' Association will hold its second annual session at the Hotel Cloister,

Sea Island, Brunswick, Oct. 7th. In addition to papers of scientific interest, members of the Georgia Industrial Commission, representatives of the Manufacturers' Association, claim agents of insurance companies and labor leaders will participate in the program.

DR. S. C. KETCHIN, Louisville, entertained the members of the Jefferson County Medical Society and visiting guests at a dinner party at his home on August 23. Visitors included Dr. Ross Brown, Atlanta, State Board of Health; Dr. J. M. Walton, Swainsboro, State Department of Public Health; Dr. Walter Revell, Baltimore, Md., University of Maryland School of Medicine and College of Physicians and Surgeons; Dr. J. R. Lewis, Emory University, Emory University School of Medicine.

#### OBITUARY

Dr. Charles Pelham Ward, Emory University; Southern Medical College, Atlanta, 1894; aged 69; died on July 30, 1939 at his home. He was a native of Lincoln county and resided in Atlanta for forty-five years and had practiced medicine for thirty-five years until forced to retire on account of ill health. Dr. Ward was an instructor at Emory University School of Medicine for a number of years. Surviving him are his widow, four daughters, Misses Cynthia, Jane, Leta, and Betty Ward, all of Atlanta; one son, Captain Charles P. Ward, M.D., Medical Corps of the United States Army, Brooklyn, New York. Dr. Louie D. Newton and Rev. Eugene C. Few officiated at the funeral services conducted at the chapel of Harry G. Poole. Burial was in West View cemetery.

Dr. Clarence H. Willis, Barnesville; member; Atlanta College of Physicians and Surgeons, Atlanta, 1906; aged 57; died of heart disease on August 15, 1939 in a private hospital in Barnesville. He was a native of Barnesville and had done all his professional work in Barnesville and surrounding community. Dr. Willis was a leader in civic and religious affairs. He was a member of the Lamar County Medical Society, Lamar Civic League, Rotary Club, and the Methodist church, and had served for many years on the Board of Trustees of Gordon Institute. Surviving him are his widow, one daughter, Mrs. Robert Black, Thomas-ton; two sons, Clarence Willis, a student at the University of Georgia School of Medicine, Augusta; and Russell, a student at Emory University, Atlanta. Rev. John Tate, pastor of the First Methodist church, officiated at the funeral services conducted from the home. Members of the Lamar County Medical Society and the Board of Trustees of Gordon Institute were honorary pallbearers. Burial was in Greenwood cemetery.

Dr. Allen C. Holliday, Athens; member; University of Georgia School of Medicine, Augusta, 1884; aged 75; died in a private hospital at Athens after a long illness on August 20, 1939. He was a native of Jefferson and a member of one of Jackson county's most prominent families. Dr. Holliday was known throughout Clarke and adjoining counties as an eminent physician. He served on the Athens Board of Education for a number of years, was a member of Clarke County Medical Society, Tenth District Medical Society; officer and member of the First Methodist

church. Surviving him are his widow, one son, Dr. Henry C. Holliday, Athens; four daughters, Mrs. J. T. Ecker, Cochran; Misses Annie May, Kate and Norine Holliday, all of Athens. Burial was in the Oconee cemetery in Athens.

#### JOINT MEETING OF THE GEORGIA SECTION OF THE SOUTHEASTERN SURGICAL CONGRESS AND THE SEVENTH DISTRICT MEDICAL SOCIETY

A joint meeting of the Georgia Section of the Southeastern Surgical Congress and Seventh District Medical Society will be held at the Coosa Country Club, Rome, October 4, 10:00 o'clock Central Standard Time.

The program consists of reports of cases and discussions.

1. Gangrenous Appendicitis (Indwelling Catheter), by Dr. John Mooney, Statesboro, and Dr. Kenneth Hunt, Griffin.
2. Acute Pancreatitis, Dr. Herbert Acuff, Knoxville, Tenn., and Dr. Grady N. Coker, Canton.
3. Drainage of Common Duct Following Cholecystectomy, Dr. H. L. Erwin, Dalton, and Dr. Ralph N. Johnson, Rome.
4. Ovarian Cysts, Dr. Bruce Schaefer, Toccoa, and Dr. Wadley R. Glenn, Atlanta.
5. The Peptic Ulcer Problem, Dr. R. L. Sanders, Memphis, Tenn., President, Southeastern Surgical Congress.

#### Barbecue Luncheon—Coosa Country Club

Guests of Dr. J. T. McCall, Dr. Ralph N. Johnson and Dr. Lester Harbin, Rome.

#### Luncheon Speakers

Dr. William H. Myers, Savannah, president of the Medical Association of Georgia.

Dr. J. C. Paterson, Cuthbert, president-elect, Medical Association of Georgia.

#### Afternoon Program—2:30 P. M.

6. Fractured Pelvic with Punctured Bladder, Dr. H. W. Jernigan, Atlanta, and Dr. E. B. Anderson, Americus.
7. Hydronephrosis Due to Stone, Dr. Wallace Bazemore and Dr. W. E. Upchurch, Atlanta.
8. Endarteritis Obliterans, Dr. D. Henry Poer, Atlanta, and Dr. Exum B. Walker, Atlanta.
9. Acute Laryngotracheobronchitis, Dr. Ed S. Wright, Atlanta, and Dr. Ralph McCall, Rome.
10. Carcinoma of the Breast, Dr. Enoch Callaway, LaGrange, and Dr. Lester Harbin, Rome.

#### BOOK REVIEWS

When a reputable company reverses the present trend toward higher prices and publishes a good medical book, by an authority, at a moderate price, that is not only news, but also good news to all doctors.

Such a book I have found in *Diseases of the Nose, Throat, and Ear* by W. Wallace Morrison, M.D., Professor of Otolaryngology, New York Polyclinic Medical School & Hospital. Published November 1938 by the W. B. Saunders Company of Philadelphia. Octavo of 675 pages, 629 illustrations, Cloth \$5.50 Net.

I am heartily recommending Morrison's text to all and sundry, but especially to the associate and resident surgeons in my O. R. L. clinic at Grady Hospital. It is quite comprehensive and up to date, yet remarkably

brief, clear, and, above all, practical. It is illustrated by the author with illustrations that double the clearness and value of the text. They show not only gross and microscopic anatomy but also gross and microscopic physiology and pathology, making it a continual delight to an old teacher, of both pathology and of O. R. L., like myself.

Nasal allergy and asthma are fully, but not pedantically discussed. The diseases of the pharynx, larynx, trachea, bronchi, esophagus, peroral endoscopy, ear diseases and intracranial complications of ear, mastoid, paranasal sinuses, etc., are all adequately covered, as well as their relation to other medical fields.

To sum up Morrison's book:—Seemingly nothing is overlooked, or skimmed, and yet not a word is wasted and nothing is overdescribed. Everything is given its exact weight and importance, but no more and no less. Any doctor no matter what his field of practice can get both valuable and practical help from this, to me, unique book.

RICHARD M. NELSON, M.D.

*Diseases of the Nose and Throat, Second Edition.* Charles J. Imperatori, M.D., and Herman J. Burman, M.D., New York. 726 pages. 480 illustrations. Published by J. B. Lippincott Company.

This second edition has been brought out only three years after the first, so well was the first received and because of the progress in otolaryngology. The text is in outline form. Diseases are described in a fashion rather different from most textbooks in that symptomatology, diagnosis, and treatment follow the definition, and etiology, pathology, and prognosis bring up the conclusions. Some embryology is found at the beginning of each section. No descriptions are lengthy. Standard otolaryngologic operations, together with lists of instruments used, are described. In addition to the usual problems of otolaryngology, allergy in its relation to the subject, diseases of the oral cavity, and the recently popularized rarer complications of sinusitis have been added. It is quite complete and of necessity brief. It makes a good quick reference book in this subject.

LESTER A. BROWN, M.D.

*New and Nonofficial Remedies*, 1939. Contains descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1939. Cloth. Price, postpaid, \$1.50. Pp. 617—LXVII. Chicago: American Medical Association, 1939.

Each year a revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January first is published in book form under the title of *New and Nonofficial Remedies*. The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary nonofficial articles, simple pharmaceutical preparations, and other articles which require retention in the book.

A list of articles and brands accepted by the Council, but not described, is included in the book to cover simple preparations or mixtures of official articles



(U.S.P. or N.F.) marketed under descriptive, non-proprietary names for which only established claims are made. Diagnostic reagents which are not used in or on the human body, and protein diagnostic preparations are not included in *New and Nonofficial Remedies* unless the determination of the status of these products by the Council has been requested by the distributor: If such products are found to be marketed in accordance with the Council's rules, they may be included in the list of undescribed, but acceptable articles.

A supplement to the annual volume of *New and Nonofficial Remedies* is published twice a year to bring up to date such current revisions and additions as have been necessary since its last publication. Every product included in the book is subject to the official rules of the Council. The comments to rules are changed occasionally by way of clarifying interpretation to insure fair consideration of all submitted preparations as new standards are recognized. Such constant and critical consideration of its contents provides the physician with a valuable reference list of acceptable new preparations on which to base his selection for use in treatment according to the established current practices of the profession.

*New and Nonofficial Remedies* for 1939 omits many articles which appeared in the publication for 1938. A few of these have been omitted by action of the Council because they conflict with the rules that govern the recognition of articles or because their distributors did not present convincing evidence to demonstrate their continued eligibility. Among these are: Biliposol, Serobacterins and Suppositories Salyrgan. A considerable number of others have been omitted as being off the market.

The 1939 *New and Nonofficial Remedies*, of course, contains the revisions which appeared in the supplements for the 1938 edition, and continues the plan of grouping together articles having similar composition or action under a general discussion. These discussions have undergone considerable revision in the 1939 edition. Further revision of statements regarding the actions, uses, dosage, composition, purity, identity, strength or physical properties of many of the articles has also been necessary in some cases. Noteworthy revisions are: Anesthetics, Local; Bismuth Compounds, Organs of Animals; Vitamins and Vitamin Preparations and Liver and Stomach Preparations.

The indices of the new volume of *New and Nonofficial Remedies* are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N.N.R. This includes references to the Council publications concerning each such article as has appeared in *The Journal of the A.M.A.*, *Reports of the Council on Pharmacy and Chemistry*, *Propaganda for Reform*, Vol. 1 and 2, or *Reports of the A.M.A. Chemical Laboratory*.

THE JOURNAL would like to record the scientific work of Georgia doctors. Please send abstracts of articles published in other Journals.

## REGIONAL ANESTHESIA

In almost all the operations commonly performed on the neck, Woodbridge (S. Clin. North America, 19:583, 1939) has found regional anesthesia a satisfactory and effective procedure. It produces satisfactory blocking for the usual maneuvers of cutting, hemostasis, and sewing, but traction on the esophagus or trachea, when necessary, should be very gentle.

In the technics described, "Metycaine" (Gamma-[2-methyl-piperidino]-propyl Benzoate Hydrochloride, Lilly) was used as the local anesthetic, because this drug produces anesthesia more quickly and surely than procaine and its effects last longer. Clinically, "Metycaine" seems to be no more toxic than procaine.

"Metycaine" belongs to the group of substituted piperidinoalkyl benzoates prepared by McElvain and is commercially available from Eli Lilly and Company.

## RIBOFLAVIN ADDED TO SQUIBB VITAMIN LINE

Riboflavin (Vitamin B<sub>2</sub> or G) is now being supplied by E. R. Squibb & Sons, New York, in synthetic form for oral use in capsules containing 1 milligram, or approximately 400 Bourquin-Sherman units each. The capsules are packages in bottles of 25.

Necessary for animal growth, a deficiency causing loss of hair, dermatitis and sometimes cataract in rats; in humans a lack of which has been reported to cause a chapped condition of the lips (cheilosis), a contributing factor in the development of pellagra. Riboflavin is said to be "a component of an oxidation enzyme" which performs a very vital function in the body of every animal—that is, it takes an active part in tissue respiration.

Riboflavin was isolated some time ago in pure crystalline form from liver, yeast and milk. It appears in the dry state as a yellow, water-soluble powder, very stable to heat and oxygen but rather unstable to exposure to direct light. Because of the cost of separating it from its environment, Riboflavin produced from natural sources is rather costly. The synthetic product, such as now being marketed by Squibb, is much less expensive.

The average daily requirement of Riboflavin for an adult is estimated to be from 2 to 3 milligrams or more, as prescribed by a physician. Riboflavin Squibb is biologically standardized, assayed by the Bourquin-Sherman method.

## SULFAPYRIDINE SQUIBB AVAILABLE

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Squibb distributors are now in a position to provide either type of treatment promptly.

Because of the possibility of its inducing toxic effects, the use of Sulfapyridine should be strictly limited to those instances where the patient is under close, continuous observation of a qualified physician, and the drug is distributed through the retail drug trade with this understanding. Dosage schedules and cautionary procedures are described in the circular which accompanies each package.

Sulfapyridine Squibb comes in both tablet and capsule form. The 0.5 gram tablets are packaged in bottles of 50, 100 and 1,000; the 0.25 gram capsules in bottles of 50.

#### GOLF, AND INFANT FEEDING

It is possible to play over the entire course with a single club and bring in a fair score. But playing with only one club is a handicap. The best scores are made when the player carefully studies each shot, determining in advance how he is going to make it, then selects from his bag the particular club best adapted to execute that shot.

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Number 10

## GEORGIA MENACED BY CANCER

J. L. CAMPBELL, M.D.\*

Atlanta

Cancer was well known to the ancient world. "It can be traced backward by an unbroken record to early Greece and to still more ancient India and Egypt. . . . Hippocrates was fairly well acquainted with cancer of the breast and some of the internal organs." Joseph C. Bloodgood stated that while in Egypt he had the opportunity of examining microscopically sections of the spleen of Rameses II and found that it contained the eggs of *Bilharzia haematobia*—a parasite which sometimes causes carcinoma of the bladder. Half the people of Egypt are now infected with this parasite; 1,000,000 are totally incapacitated by it.

The morbidity and mortality from cancer have shown a steady increase in the United States, having risen from seventh to second place among the major causes of death during the past 30 years. However, Georgia has been fortunate in that cancer still remains low among our major death-dealing agents, although there has been an increase each year. There were 1,929 deaths in the State last year as compared with 1,763 five years ago. It is to offset this that the Medical Association of Georgia, the State Department of Public Health, and the Women's Field Army of the American Society for the Control of Cancer are conducting their intensive cancer educational campaigns.

The prevalence of cancer in any community depends on the number of individuals of can-

cer age (35 to 65), and to some extent on the sex ratio, for women have cancer more frequently than do men. Dublin found that out of every group of 100 white females, 13 will eventually die from cancer and that of a like number of white males, 10 will ultimately die of this disease. Certain forms of cancer are more prevalent among the low income groups than among those living in better homes and in better surroundings. Occupation, density of population, race, and many other factors influence the prevalence as well as the proper treatment of cancer.

From a statistical standpoint we believe that the rising death rate is due in part to better diagnosis. The medical profession of Georgia is becoming cancer conscious and takes more interest in reporting cancer deaths; then, the advancing age of our population furnishes more people in whom cancer may develop.

The very nature of cancer makes it a unique disease and difficult to recognize in the early stage. In order to understand the nature of cancer one must know that the body is made up of individual units called "cells." They are only visible under the microscope; but we may illustrate by saying that they have the same relation to our bodies that individual bricks have to a building.

There are two periods in our lives: The first is the formation period before birth, when the body is developing within the mother's womb. It is known as the embryonic period and is characterized by rapid cell development. The chief activity of the cells is growth. At birth this rapid growth is diminished and the second period begins. The cells assume the adult type; the organs begin to do their work; the child breathes, cries, digests its food, and all parts of the body assume the duties which nature intended. A knowledge of these facts is necessary in order to understand what a cancer really is.

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A cancer is a new-growth of cells that have reverted to the embryonic type. They cease to function and begin to grow wild. They push their way out from their starting point into the surrounding tissues and enter the lymph vessels to grow along the line of least resistance until they reach a lymph gland. Here they lodge and form a new cancer; then spread again and finally break into the blood vessels to scatter all over the body.

At first a cancer is local. It is confined to one place and in this stage may be cured by complete removal.

We do not know the cause of cancer. Research workers tell us that there are many kinds of cancer and there may be a distinct cause for each kind. No one cause can be found for all forms. However, during the past 30 years we have learned a great deal about this disease. We now know what cancer is and that it will spread all over the body if not recognized and destroyed early. We know its habits and its haunts: that is, what parts of the body it is most likely to attack and between what ages it will make the attack. Women who have had one or more children are far more likely to have cancer of the mouth of the womb than are women who have never had a child. Old men have cancer of the mouth, stomach, large intestine and prostate gland, while young men rarely have any of these.

Individuals with fair skin have cancers on exposed parts of their bodies, chiefly the face; they rarely occur on protected areas. Melanoma, the most deadly form of cancer, develops in flat black moles, especially if such moles are constantly irritated. Cancer of the breast is just as likely to occur in a woman who has never had a child as in one who has children. Cancer of the stomach is found more often in individuals who have unsanitary mouths, whose teeth and gums are infected with bacteria and show pus. It is only natural that this should be true, because they swallow pus laden with millions of germs with each mouthful of food. These germs act as an irritant to the mucous membrane of the stomach, and cancer is often the result. Cancer of the small intestines is rare; cancer of the gallbladder is quite common and develops in those persons who have gallstones. Cancer of the bones and joints is found in

young people and is the only type that causes pain early in its development. When a young person has persistent pain in a bone or joint, cancer should be suspected and proper examination be made.

Any and all cancers will eventually cause death unless properly treated in the early stage; so early diagnosis and prompt treatment are the essential factors in cancer control.

Cancer is not due to bad blood, so there is no reason to hide it. It is not contagious; no one ever caught a cancer from his neighbor. Neither is it directly inherited. One may inherit a susceptibility to the disease but that can be overcome by watchful care.

There are five important facts to be remembered in the study of cancer:

1. We wish to emphasize by repeating: Early cancer is local and if recognized at this stage it may be cured.

2. Rough handling is dangerous and massage is suicidal or homicidal, for the cells on the edge of the new-growth will be broken off and pushed into healthy tissue and then into the lymph vessels.

3. "Tissues and organs just beginning to decline in their functional activity are the ones most likely to be affected by cancer." (Jonathan Hutchinson.) Thus we expect to find the greatest number of cancers of the womb and breast in women between the ages of 40 and 60.

4. The fate of the cancer patient lies in the hands of the doctor who is first consulted—usually the family physician.

5. Last but not least, there is a great difference between an inflammatory swelling and a cancerous tumor; there is a difference between an infected ulcer and a skin cancer; there is a difference between an ordinary sore in the mouth and a cancer. In the inflammatory swelling there is soreness, the skin is red and hot, the patient will have fever and perhaps chills—all due to the local infection which irritates the nerves and causes pain. The infection produces a toxin which is absorbed, often causing a chill and fever. None of these things is seen in early cancer. When a cancer lump causes pain it is usually too late to cure it. "Be not deceived"—*early cancer does not cause pain*. Inflammatory lumps do cause pain and are sore to the touch. The one exception to this—cancer of the bone—causes

pain because the localized growth in the bone stretches the membrane that surrounds it, thereby pulling on the nerves with which it is supplied.

Many agencies are trying to educate the people in regard to all public health matters, especially cancer. The Medical Association of Georgia is spending money and energy to bring "facts about cancer" to the attention of the doctors. The American Society for the Control of Cancer through its Women's Field Army is trying to reach the public. This year, like the Red Cross, it had an enrollment month and secured about 8,000 members who contributed a dollar each. Seventy per cent of this will be spent in Georgia. Meetings will be held all over the State, talks will be given to civic clubs, schools, Parent-Teacher Association meetings, and all other groups that can be reached. Literature will be distributed, exhibits will be placed in county fairs, and every means possible will be used to reach all sections of the State. The State Department of Health, through the Division of Cancer Control, is doing a great work both for doctors and laymen.

If our educational campaigns are to do the greatest good for both doctors and laymen we must give careful study to the diagnosis of pre-cancerous conditions and the early signs and symptoms of cancer in the various organs and parts of the body. We must teach all persons how to handle a cancer and the tissues around it, so that rough manipulation may not scatter the cells to inaccessible organs and structures, thus converting a purely local lesion into a systemic one.

We have frequently stated, and we again emphasize, that four things are essential in order to reduce our present rate of cancer morbidity and mortality:

1. A thorough knowledge of the early signs and symptoms of all forms of cancer by both doctors and the public.

2. A working knowledge of those lesions (pre-cancers) which experience has shown will eventually become malignant unless eradicated.

3. Accessible, properly manned and equipped cancer clinics in or as a part of good general hospitals.

4. All cancers should be considered as emergencies.

Since *cancer of the skin* is the most frequent lesion encountered in Georgia and the South it should receive major consideration: (1) because it is responsible for the highest rate of cancer morbidity; (2) because many of these patients linger for years, becoming a liability to the family or the community and finally dying of some other disease; and (3) because they are an easy prey to the unscrupulous quack who fleeces the poor of their scanty savings without giving them value received.

During the thirteen-month period, Nov. 1, 1937 to Dec. 1, 1938, while the Cancer Division of the State Department of Health was able to give aid to Georgia's poor people who had cancer—1,059 individuals were treated by the 10 State-Aid Cancer Clinics created under the 1937 Cancer Act. Of this number 441 or 41.6 per cent had cancer of the skin: 13 of these were melanomas, cancer arising from flat pigmented moles which might have been removed before they became malignant.

During the five-year period from June 1, 1934 to June 1, 1939 there were diagnosed and treated at the Cancer Clinic of the Georgia Baptist Hospital, Atlanta, 1,514 white individuals with cancer—821 or 54.8 per cent of these had cancers of the skin which were located as follows: face, nose, temple and ears 759; back of neck 21; hands 20; scalp 12; back 4; chest 3; thigh 1, and foot 1. The vast majority of these people came from the rural districts and were farmers or farm hands. The majority of the lesions have been cured; but it is not infrequent for a farmer who had a cancer on one side of the face, nose, temple or ear to return a year or two later with a similar lesion on the opposite side. There were only 14 melanomas in this group of cases.

Max Cutler and Buschke have divided skin cancers into four clinical groups:

1. Squamous cell or epidermoid carcinoma.
2. Basal cell carcinoma or rodent ulcer.
3. Malignant melanoma—arising from flat pigmented moles.
4. Adenocarcinoma—arising from the sweat or sebaceous glands.

Squamous and basal cell skin cancers are by far the most numerous of the four types and will be discussed together, although it is important that a differential diagnosis be made

before treatment is instituted. The former are far more virulent and spread early, first to the regional lymph glands and then through the blood or lymph streams to become disseminated to all parts of the body.

The clinical appearance of the lesion and its anatomic location have been thought to be of great diagnostic value, but experience at the Cancer Clinic of the Georgia Baptist Hospital, Atlanta, has upset the former supposed security on this point. However, those lesions on the upper part of the face, the ear, the nose, the eyelids, the temples and those on the back of the neck will usually be of the basal cell variety and of low malignancy. Another feature that helps is the rate of growth—the basal cell lesions being chronic, often 3 to 5 years' duration before marked damage is done. On the other hand, the squamous cell cancers grow rapidly and invade the regional lymphatics early. Both varieties, except those squamous cell cancers that arise in the margin of a deep scar, are preceded by a very definite pre-cancer stage—keratosis, a rough, scaly spot on the hand or face. It is characterized by a raised scab which may be easily removed only to increase in size and thickness each time it re-forms; finally, when it is removed, a bloody serum exudes only to dry and form another scab. If such a lesion is given proper treatment—that is, properly applied electric cautery, fulguration or coagulation, or a light dose of radium—it can be permanently cured. But such spots may continue to form on the exposed parts of a fair, thin-skinned individual. It is therefore wise to protect such skin from cold winds and sunburns.

In any early lesion biopsy from a carefully selected area affords the only definite diagnostic procedure. The specimen should be of sufficient size to give the pathologist a clear picture of the cell arrangement as well as a view of the cells themselves. The tissue should be taken with a sharp instrument, put immediately into a 10 per cent solution of formaldehyde and sent at once to the laboratory for prompt examination, so that treatment may be instituted as early as possible after the continuity of the sore has been broken.

Only a few adenocarcinomas were found in the Georgia Baptist Hospital series. The only method by which they may be differentiated from the others is by biopsy. This should be

done in all cases. A prompt frozen section examination should be made of all lesions where there is not an open sore, so that treatment may be instituted at once, for disastrous results may follow if the patient fails to be impressed with the seriousness of his condition and does not return promptly. These lesions require radical treatment by whatever means selected.

Basal cell carcinomas yield readily to light doses of radium or x-ray. However, the first treatment should be thorough, for imperfect treatment renders the cells less radio sensitive and may mean a complete failure. Early cases are curable. Advanced cases of either variety may prove to be only temporarily improved. Many plans to revive the radio sensitivity of lesions have been devised, but at present there is no definite procedure that can be recommended and surgery has to be the final recourse in many cases. Again, if the lesion has become attached to the bone and the cells have infiltrated it, irradiation is without value.

Anyone having a sore on the surface of any part of the body should see his family doctor at once. If the doctor is not prepared to make a diagnosis and institute treatment, he should be asked to arrange consultation with someone who is prepared to give the proper care to such conditions. In order to aid the physician in making an early diagnosis of cancer, the State maintains a free tissue diagnostic service for indigent patients. Tissue from suspected malignant lesions may be sent to the State Laboratory for microscopic diagnosis.

Among the 441 skin cancers referred to State-Aid Cancer Clinics and the 821 seen at the Georgia Baptist Cancer Clinic there were 27 melanomas. A small percentage, it is true; but when one thinks of the virulent malignancy of these lesions, even so small a percentage is tragic, especially since nearly all of these cancers could have been prevented had these pigmented moles been removed. All pigmented moles should be removed by a wide excision carried deep enough to include all the underlying fat. They should never be cauterized or removed by an electric needle. Radium and x-ray are worse than useless. If the mole has begun to itch and is surrounded by a red area an extra radical excision may not be too late.

*Cancer of the lips and mouth.* Among the 1,059 State-aid cancer patients there were 94



cancers of the mouth, and 112 among the 1,514 Georgia Baptist patients. There were a few overlapping cases in this series, but it may be safely said that there were 200 or 7.7 per cent out of the combined 2,573. Cancers of the lip and mouth do not rank numerically second to skin cases, but they are for the most part of epithelial origin and it is in order to discuss them second.

In the mouth and on the lip nearly all lesions are of the squamous cell type and spread quickly to the regional lymph glands, but rarely to the general lymphatics. The patient usually dies from inability to take food as a result of the rapid local infiltration and toxic absorption from the secondary infection. Cancers of the lip and mouth can be prevented! There is in most cases a definite curable pre-cancer lesion: on the lip—a crusty area; in the mouth—a fissure on the side of the tongue or an induration on the inside of the cheek, an erosion where an ill fitting dental plate has been pressing or a white, raised velvety spot called a leukoplakia. These conditions are caused by excessive smoking, the heat from a pipe stem, cigar or cigarette (producing a thick, crusty patch on the lip), a broken, jagged or misplaced tooth (cutting the tongue or cheek). Oral sepsis completes the cycle. Cancer of the mouth and lips is more frequent in men past middle age. A few occur in women; all the women in this series of cases “dipped snuff.”

Early cancer of the mouth is painless and not sore. It may advance to an incurable stage before causing pain. There is generally a fissure surrounded by induration on the cheek, gums, side of the tongue or floor of the mouth. As it advances the center ulcerates and the brawny ring increases in extent. The regional lymph glands enlarge and usually suppurate, as infection from the sore in the mouth follows the cancer cells.

Early cancer of the lip can often be cured by the proper application of radium. If it is advanced and induration has involved the entire thickness of the lip, surgery is best resorted to, followed by heavy doses of x-ray to the regional lymphatics.

The treatment of intra-oral cancer is far from standardized. In our experience x-ray and radium have had little effect except to make it worse. However, some authorities think it is the best method and recommend

excessive doses, especially for the first treatment. They bury radon seed and pour the x-ray directly to the lesion in doses as heavy as the patient can stand it.

We have had some good results with surgery. We remove the lesion with the Davis Bovie knife, then control the bleeding with the coagulation current. If the lesion is confined to the anterior portion of the tongue or cheek, good results may be expected. Lesions in the floor of the mouth are difficult to cure. Careful follow-up is advised.

*Cancer of the uterus* (womb) causes about 25 per cent of all cancer deaths in women. In a series of 2,573 patients treated at Georgia's State-Aid Cancer Clinics and the Georgia Baptist Hospital Cancer Clinic, 350 women had cancer of the reproductive organs: the ovaries, uterus, uterine cervix, os, vagina and vulva. There were 259 of the cervix (neck and mouth of the womb); 65 of the body, 25 of the ovaries and one of the vulva or external opening. About 90 per cent of the cervix cases were of the squamous cell (epidermoid) variety. Nearly all cancers of the body of the womb are adenocarcinomas. The ovarian cancers were of several different types.

As the cause of many cancers of the cervix is so evident, a large number of them can be prevented. Just a little care on the part of the doctor and the cooperation of the patient would soon lower their incidence. The majority occur in women who have borne children; so if every woman will return to her physician when the baby is a month or six weeks old and have him make a thorough examination of the birth canal and apply the proper treatment to any unhealed area—abrasions or ulcers that may still exist—then make a habit of having such an examination and treatment once or twice a year for the remainder of her life *cancer of the cervix can be banished!* These conditions are pre-cancer, cause little inconvenience and few, if any, signs or symptoms; therefore they will be found only by examination.

Cancer of the womb has well defined age limitations. It occurs most frequently between the ages of 35 and 60. It will be found more often during the early years of the “change of life” and many a woman has gone to an untimely grave because she believed that it was normal for her to have an unnatural flow during that period. There is no pain or

discomfort to announce the approach of cancer of the womb!

What, then, will indicate its presence? A slight, blood-tinged watery discharge between menstrual periods, a blood-tinged spot on the night clothing; bleeding following any undue strain; for instance, straining at stool, or lifting the baby. Be sure to remember that an unnatural discharge between periods is a danger signal. Fully one-third to one-half of such signs indicate early cancer. Excessive bleeding at the regular period is not nearly so dangerous; yet it should be investigated because there are simple lesions that, lacking attention, may eventually become cancer. Bleeding after the change is still more alarming, for in at least 75 or 80 per cent of such cases, cancer is the cause! Early cervical cancer may be seen as a flat or slightly excavated ulcer on one side of the opening of the womb canal or it may completely encircle it; then again the ulcer may present a wart-like outgrowth confined to a similar area. No matter how superficial such an area may appear, if it bleeds easily when mopped with gauze or cotton, it is suspicious. It demands further investigation and should be considered cancer until proven otherwise.

Here, as in cancer of the skin, biopsy from a carefully selected area is necessary to make a definite diagnosis. It has been suggested that if the cervix is painted with Lugol's solution of iodine the cancer will not present the nut-brown appearance of the healthy mucosa. In many instances this is true, but there are conditions other than cancer which will react in the same way. The only advantage of this procedure is to aid in the selection of the area from which to secure the specimen to be sent to the pathologist.

When a diagnosis is made, people want to know: What are the chances of recovery? How long will the treatment last? What will be the approximate cost? In cancer of the cervix and uterus the procedure is well standardized. The Cancer Commission of the League of Nations has divided cancer of the cervix into four stages:

*Stage 1.* Where the lesion is strictly confined to the cervix.

*Stage 2.* Early or slight infiltration into the tissues immediately surrounding the cervix.

*Stage 3.* Advanced infiltration extending into the tissues around the womb and into the vagina.

*Stage 4.* Involvement of the bladder or rectum.

spread into the broad ligaments and beyond, so that the pelvic contents are "frozen."

Before instituting treatment a biopsy should be made because the character of the cells, as well as the clinical appearance, greatly influence the procedure. It is to be hoped that the family physician will soon refrain from saying to a patient, "All you need is a little radium. Go down to my friend, Dr. —, and tell him to fix you up." Many times radium is not at all indicated or, if it is, x-ray treatment should first be used to prepare the field. Such advice is given with the best intentions, but it frequently "muddies the water," so that the patient returns home only to delay treatment and lose valuable time.

Treatment must depend entirely on the extent of the lesion. In very early cases, Stage 1, radium is all that is needed; but the patient must agree to return for other series of treatment and then for a long series of follow-up reports. With proper cooperation between doctor and patient nearly all of these people can be cured. In more advanced cases, Stage 2, radium and x-ray treatment are indicated. The doses must be left entirely to the judgment of those who are accustomed to handling these therapeutic agents. A reasonable number of these patients are still curable. In the advanced cases of Stages 3 and 4, the only hope is alleviation, although I have been surprised at results obtained by cutting away the cancerous tissue with a Davis Bovie loop, then applying radium and later, large doses of x-ray. If possible x-ray should be used first.

Cancer of the cervical canal and body of the womb can easily be overlooked as the cervix may appear normal and the only symptom be bleeding and later enlargement and tenderness of the womb. Diagnosis can best be made by curettage; scrapings from the cervical canal and the inside of the womb. If cancerous, curettage should be followed by the application of radium and later by complete removal of the womb and pelvic organs. A large number of these women remain well for an indefinite time and many never have a recurrence.

It is a great mistake for one not familiar with the therapeutic use of radium and x-ray to try to tell the patient anything about it.

*Cancer of the breast.* These lesions rank second only to cancer of the reproductive organs as the cause of cancer deaths in women.

In the Georgia State-Aid Cancer Clinics and the Georgia Baptist Hospital Clinic series where 2,573 patients were treated for all forms of cancer, there were 273 breast cancers or 10.6 per cent of the entire series as against 350 or 13.6 per cent for the reproductive organs.

We cannot as yet claim the same ability to prevent cancer of the breast that we can to prevent cancer of the uterine cervix, but we can persist in teaching that a painless lump in the breast of a woman approaching "the change of life" or at any time after the age of 40, is more than likely to be cancer. A quarter of a century ago practically all cancers of the breast were hopeless when seen for the first time. Doctors were only familiar with the textbook picture which described a breast cancer as a mass in the breast with retracted nipple, enlarged glands under the arm, swelling and pain. Consequently, when a woman with a fairly movable painless lump in the breast went to a doctor for advice, she was told to let it alone and see if it gave trouble before she did anything for it.

Nothing definite is known of the cause of breast cancer. Many theories have been advanced but all of them have proven worthless. Age is perhaps the most important factor to consider: breast cancer is rarely seen in an individual less than 25 years of age. The incidence then increases, slowly up to the age of 40. After that age, all solitary painless lumps should be considered cancer until proven otherwise. The average age is about 49 years in white women and 41 or 42 in negroes.

Cancer of the breast is as frequent in unmarried women and in childless married women as in those who have borne children. Abscess of the breast has little or no influence, neither does the time at which the baby is weaned. The wearing of high corsets or no corset does not seem to affect its occurrence. Heredity is believed to have some influence: but that too has not been proven. Injuries may call a woman's attention to a lump in the breast, but perhaps never cause one. A rapidly-growing tumor is more likely to be malignant than a slow-growing one. A discharge from the nipple is always cause for alarm to women, but its significance is variously estimated as cancer or pre-cancer. This is also true of cakes or areas of mastitis which occur in the breast just before menstruation.

A solitary cyst or one containing a papilloma—a wart-like growth—should call for complete removal of the breast, but not axillary dissection unless the lesion is found to be malignant.

A properly conducted physical examination is valuable, but not conclusive in early cases. The chest should be completely bared and inspected while the arms are hanging loosely by the sides. The relative size of the breasts should be noted. The affected breast will appear shorter, with the lower border squared off, as it were. Even in early cases dimpling or furrowing of the skin may be noted over the underlying tumor. Retraction of the nipple is seen only in advanced cases. In early cases there will be no palpable lymph glands in the armpit. As the disease advances the skin may assume an orange peel appearance. This is also true in the inflammatory type. Such an appearance renders the prognosis exceedingly grave. With the patient in a recumbent position it is often possible to detect a lump that was overlooked while the patient was sitting up. We should never fail to have the patient raise her arms over her head some time during the physical examination.

All manipulation should be done with the utmost gentleness and care, remembering that a cancer invades tissues in the line of least resistance. It may be likened to a burr with prongs extending out in all directions. Rough handling may detach some of these and force them into a lymph or blood vessel and hasten the spread to other parts of the body, so that when the examination is completed a local lesion may have become a generalized one.

In some of the chronic fibrous types the breast may be flattened out like a saucer. However, this does not mean that the cells are not of an active type. No matter how pendulous, the breast should never be picked up and pressed between the hands, as well developed gland tissue may be mistaken for a tumor. The examination should be made with the hand and fingers loosely extended so that the breast can be pressed against the chest wall and all areas carefully palpated both in the sitting and in the recumbent positions.

One of the most practical methods of determining if a tumor is attached to the deep structures is to have the patient press against the hips with the arms "akimbo." In this



way the pectoral muscles are made tense so that the tumor cannot be moved in any direction if it has invaded the fascia and muscle.

Transillumination—shining a light through the breast—impresses the patient, but is worthless in determining the character of the tumor. It may, however, be of some value in locating bleeding from tiny wart-like growths in the milk ducts.

Breast cancer spreads through the lymphatic drainage area: (1) to the armpit; (2) to the glands above the collar bone; (3) to the lungs; (4) to the liver; (5) to the other breast; (6) to the long bones, and (7) to the lower spine. In fact, it may enter the blood stream and spread to every part of the body. Of all malignant tumors, cancer of the breast has the greatest tendency to spread. Therefore, unless it is *recognized early and treated properly it cannot be cured*.

Remember, cancer of the breast is the most important malignant lesion in the body. Early diagnosis is imperative if a cure is to be effected. (1) Cancer of the breast rarely occurs in a woman under 35; (2) it causes no pain and is not tender until well advanced; (3) it may or may not be accompanied by bleeding from the nipple; (4) it invades the surrounding tissue early by sending out burr-like processes along the numerous lymph vessels, and (5) rough manipulation during examination, rubbing with salves, massage, pinching or jostling may detach these burrs and start them along a lymph vessel to land in a nearby gland or in some distant part of the body.

Every breast examination demands careful palpation of the axilla (armpit), for as a rule it is there that the first indication of the spread to other parts is detected. Then the area above the collar bone and the other breast and armpit should be examined. An x-ray should be made of the chest, the lower spine and the long bones. If cancer has spread to the lungs, liver or bones there is no treatment that will save the patient's life.

Like cancers of the womb, breast cancers may be classified into three clinical stages:

*Stage 1.* A definite tumor that is freely movable and apparently not attached to any of the structures. No axillary glands palpable. Properly treated by surgery, such a cancer will yield 75 to 80 per cent permanent cures.

*Stage 2.* A tumor still unattached to the skin or muscles but with axillary glands that can be felt. Such

a tumor treated by x-ray and later surgery may yield 40 to 50 per cent cures.

*Stage 3.* A tumor that has invaded the skin, is attached to the deep structures with large or matted axillary glands and shows evidence of more extensive spread, should be treated by x-ray alone; then watched carefully every few months. However, there is little hope of a cure—only a slight prolongation of life, alleviation of pain and perhaps less discomfort for the patient. It is sometimes justifiable to remove a foul, ulcerating breast just because the patient's last days may thereby be made more bearable.

*Treatment:* No cancer requires greater individual study than cancer of the breast. If seen early, many patients can be permanently cured. There are hundreds of women in Georgia, now well and strong, who had proven breast cancers removed many years ago. Others have lived longer and died more comfortable deaths as a result of treatment.

Early cases—Stage 1—are best treated by surgery. A biopsy can be made on the operating table with the pathologist present to give an opinion. If the lesion is malignant an extensive dissection of all accessible lymph drainage areas should be done. If non-malignant, the tumor or the breast should be removed as the case demands.

In Stage 2, a series of preoperative x-ray treatments should be given. The breast may be removed before the height of reaction or later, after it subsides. The latter procedure is sometimes risky, as the patient, lulled into a state of security by the shrinkage of the tumor, may defer the operation and lose her life.

In Stage 3, palliation alone is all that is justifiable. X-ray is the best means of securing this result.

There are other factors to be considered beside the clinical grouping. Pregnancy plays a most important part: rarely does such a patient live longer than a few months. When a tumor in the breast of a pregnant woman is found to be malignant the pregnancy should be terminated and an x-ray sterilization done at the same time the breast tumor is receiving x-ray treatment. Young women as a rule do not recover from cancer. They should receive the most active treatment and x-ray sterilization at once.

In my experience, tumors of the upper outer quadrant have proven most dangerous. The rate of growth influences the prognosis to a great extent, though rapidly-growing tumors respond to radiation more readily than the

slow-growing ones. Nearly all fast-growing tumors result in general spread and early death.

A fat patient is a bad risk.

All of the above mentioned facts should be considered when you are asked for an opinion on the final outcome. A few fat women, now and then a young one, will recover for a five-year period. I have known of only one patient treated during lactation who has remained cancer free for one year. After all, each and every case should be considered individually and given treatment accordingly.

*Cancer of the digestive tract and peritoneum.* According to the International classification the structures in the digestive tract and peritoneum are: (1) the esophagus (the swallow); (2) the stomach; (3) the intestines—the small intestine, the appendix, and the large intestine; and the rectum, together with the accessory organs—the liver, the gall-bladder, the pancreas and their enveloping membrane, the peritoneum. Cancer of this group is credited by the United States Bureau of Vital Statistics with more than one-third of all cancer deaths. However, these structures are not equally affected by cancer.

Many authorities say that cancer of the esophagus ranks fifth. It is reported to have constituted a fifth of all gastro-intestinal cancers in an autopsy series at Stanford University School of Medicine. In our series of 2,573 patients there were 131 cancers of the digestive tract and peritoneum and only 5 of these were located in the esophagus.

Cancer of the esophagus occurs four times as often in men as in women. It is rarely seen before the age of 50. James Ewing suggests that alcohol, hot irritating foods, tobacco, and various wounds may act as contributing causes. He also states that it may develop on different kinds of ulcers. We will have to disagree with Dr. Ewing in regard to alcohol and tobacco as a cause, for hundreds of our mountain people drink large quantities of undiluted raw corn whiskey fresh from the still and they chew unlimited quantities of tobacco without developing cancer of the esophagus.

The lesions are usually located where the anatomic narrowings occur—the upper and middle thirds and the lower end just above or where the tube passes through the dia-

phragm. From the latter point the cancer may extend into the stomach.

There are three distinct types: (1) an ulcer which may extend entirely around the tube; (2) an infiltrating type which does not ulcerate but is widely disseminated like a "leather bottle" stomach; and (3) a polypoid type, usually of the adenocarcinomatous variety, which bleeds easily and as it progresses may slough off, following which the symptoms are greatly relieved for a time.

All three varieties spread to the adjacent lymphatics and to the lungs and liver. Their first symptom is usually difficulty in swallowing, accompanied by loss of flesh and strength. The difficulty in swallowing increases as the disease progresses until the tube may be entirely obstructed. This may be preceded by pain, by shortness of breath from pressure on the windpipe, by a cough or by loss of the voice due to paralysis of the nerve that supplies the left vocal cord.

In order to differentiate the lesion from a gumma, a Wassermann blood test should be made. Then an x-ray picture will help to determine if it is a cardiospasm or diverticulum. Lastly, an esophagoscopy examination with a biopsy will disclose its true nature.

Cancer of the esophagus is practically hopeless. A few cures have been reported—one or two by surgery; that is, resection and removal of the growth. It may be feasible to undertake such a procedure when the disease is located in the upper third near the pharynx and not very far advanced. A small adenocarcinoma may be removed with an electric loop and radium applied to the base. But if the disease is not in a *very* early stage, spread will already have taken place and the patient will die of the lesion which has already invaded the lungs or liver. X-ray may relieve the discomfort for a time, but no permanent benefit has been reported. If the patient's general condition is good, a gastrostomy may be done so that the pangs of starvation are relieved. The life expectancy of a patient with esophageal cancer is about 18 months.

The stomach is more frequently attacked than any other member of the digestive tract. Cancer of the stomach is credited with from 27,000 to 30,000 deaths annually. Statistics for 1934 reported from hospitals rep-

representing 79 per cent of the beds in Georgia showed that 77 patients had carcinoma of the stomach, liver, and pancreas. Reports since obtained from the cancer clinic of the Georgia Baptist Hospital and the 10 State-aid clinics show that there were only 29 stomach cancers in the combined series of 2,573 patients; yet each year the State's Bureau of Vital Statistics shows a rate of stomach cancer deaths which closely corresponds with that of the National Bureau.

Cancer of the stomach is a little more frequent in men than in women. It may occur at any age, but is found more often during the fifth and sixth decades. Individuals who brag that they can eat anything without feeling inconvenience and those who always have digestive disturbance are the two classes most frequently attacked. In the former, early symptoms are disregarded; while in the latter everyone, including the patient, is likely to overlook grave signs.

There are three favorite sites for cancer of the stomach: about half occur near the outlet, begin on the upper border and gradually involve the entire circumference; one-fourth are in the body of the stomach or along the borders; about 5 per cent are diffused over the entire stomach, giving it an appearance known as the "leather bottle stomach"; the remaining 20 per cent occur near the inlet and in the dome.

The onset of cancer of the stomach is one of the most insidious of all. It may be far advanced before it is recognized by either doctor or patient, its first warning being any one of the three following groups of symptoms:

1. A sudden attack of indigestion in an individual past 40 who has always enjoyed good health.

2. Gradual loss of strength, lassitude, slight nausea, loss of appetite with loathing of certain foods.

3. "Ulcer symptoms." These may be a burning distress in the pit of the stomach, sour eructations, expectoration during the night of a few mouthfuls of hot burning fluid. Or there may be stomach distress several hours after eating, which is relieved by a glass of milk, a little soda in water or any food that will neutralize the stomach content. Or the stomach distress may immediately follow the intake of food; the only relief is by vomiting. These symptoms vary

according to the location of the lesion. A rather late symptom is the vomiting of blood or coffee-ground material.

The physical examination should consist of:

1. A thorough inspection and palpation of the abdomen. If the patient is thin a mass may be felt in the upper abdomen when the disease is located around the outlet or pylorus or in the lower border. If there is obstruction at the outlet (pylorus), the outlines of the stomach can sometimes be made out. The mass must be large and the disease advanced if it can be felt in an individual with thick or rigid abdominal wall. Sometimes a rigidity of the upper end of the recti muscles will be the only physical sign.

2. Certain laboratory procedures. There should be chemical examination of the stomach contents after the Ewald test meal, and a thorough fluoroscopic and x-ray study.

3. Gastroscopic examination. In recent years the gastroscope is developing what appears to be the most conclusive step in early diagnosis, one that will reveal the extent and, most likely, the character of the lesion.

To be properly evaluated, these findings must be grouped and no one considered to the exclusion of the others. At the present time perhaps two features (in addition to a careful history) must be given greatest prominence—x-ray findings and stomach content analysis, with emphasis on their combined evidence.

It is generally too late when a mass can be felt and coffee-ground vomiting has occurred. If we are to reduce mortality of cancer of the stomach prompt action must be taken to institute diagnostic procedures at the slightest warning. Treatment must be begun just as soon as anything like a definite diagnosis is made.

Cancer of the stomach is essentially a surgical disease. If "ulcer symptoms" have persisted and an ulcer demonstrated on the stomach side of the pylorus or outlet it should be treated surgically as a pre-cancer lesion. If a definite cancer exists, resection of the stomach should be done as the only means of curing the condition. In the hands of experienced operators a reasonable number of cures may be expected.

If it is found that the cancer has spread to other organs the wound should be closed ex-



cept under one condition—pyloric obstruction. There are two ways of relieving this condition: one by anastomosing the small intestine to a healthy part of the stomach; the other by resection. Which of these procedures should be adopted will depend on the patient's condition and the judgment of the surgeon.

X-ray therapy is useless at the present time and cancer in this location, as elsewhere, will not yield to drug therapy.

Cancer of the small intestine is rare. There were only 55 cases encountered at the Mayo Clinic, Rochester, Minn., during a period of ten years—1919 to 1929. At the same time there were 4,597 cancers of the colon and rectum and 4,335 of the stomach—a ratio of 1 to 162.4.

Cancer of the small intestine usually arises from the base of a papilloma (a wart-like growth) of the mucous membrane and is symptomless until of sufficient size to cause obstruction, when there will be pain, vomiting and constipation. If the lesion is located at or near the opening of the bile duct in the first portion of the intestine there will be jaundice resembling that seen in cancer of the pancreas. The only worthwhile treatment is surgery. If a diagnosis is made before extensive spreading has occurred the prognosis is favorable, as resection of the small intestine is not a formidable operation. X-ray and radium are of little or no value.

Carcinoid tumors of the appendix are present in about one out of every 250 chronic appendices removed. They are located in the tip and are benign or only mildly malignant. As a rule, they occur in young women. On the other hand, true cancer of the appendix is found after 40 and in both sexes. The symptoms are those of chronic appendicitis and the diagnosis is rarely made before operation.

*Cancer of the Colon.* The large intestine is spoken of as the right colon; it includes the cecum, ascending, hepatic flexure or bend and one-half of the transverse colon. The left colon is the remaining half of the transverse colon, the splenic flexure or bend, the descending and sigmoid colon and the rectum.

Strange as it may seem, cancers of the right colon differ from those in the left colon and those in the rectum are unlike the other two. On the right side, the lesion is characterized

by a cauliflower-like growth extending into the lumen of the intestine. As the fecal content of this portion of the bowel is liquid there is little danger of obstruction, especially as the lesion has a tendency to become necrotic and slough. This is followed by bleeding, ulceration, and infection, so that pus as well as blood is mixed with the evacuated feces. The type of growth is the same everywhere in the right colon and the majority of them are located in the cecum just above the appendix. They become fewer in number toward the middle of the transverse colon.

*Symptoms:* These cancers of the right colon cause little or no pain until after ulceration and infection. The bowel discharge is diarrheal in character and contains pus and blood. The symptoms of toxemia develop rapidly and the patient becomes anemic early in the course of the disease so that the condition may simulate pernicious anemia. A patient past 40 presenting the following symptoms: a diarrhea with pus and blood in the movements, toxicity with rapidly developing anemia, and loss of flesh and strength, should be suspected of having cancer of the right colon and should be given a barium enema with a careful fluoroscopic and x-ray examination. Later, pain is a prominent symptom and the condition may be mistaken for an appendiceal abscess or gallstone disease.

Passing into the left colon, we encounter a growth presenting very different characteristics. It is generally fibrous, of the scirrhus type, does not ulcerate or bleed, but gradually encroaches on the lumen of the bowel. The lesions may be located at any point in the left colon, but they increase in frequency as the rectum is approached. The most frequent location, and fortunately the most favorable for the patient, is about the middle of the descending colon; at this point they spread late and less extensively. The fecal content of the colon increases in consistency as it approaches the rectum, therefore obstruction is more likely to occur. There is distention above the growth, accompanied by griping pains and loud rumbling from gas forced through the narrowed lumen of the bowel. Any habitual cathartics have to be increased and those that produce watery evacuations are usually taken. There may be alternate constipation and diarrhea, but bleeding seldom occurs. How-

ever, the patient becomes anemic and loses flesh and strength, but not so markedly as in cancer of the right colon.

There should be a careful x-ray study of an individual past 45 who presents the above symptoms, especially any marked change in the bowel habits. The barium should never be given by mouth, as there is danger of obstruction from filling the bowels with the heavy material. Always give an enema and watch the barium with the fluoroscope as it ascends the colon. In many cases, acute obstruction may be the first symptom of a left colon cancer.

Choice of treatment in cancer of the colon will depend on its location, the stage at which diagnosis is made, the patient's general condition, the length of time the disease has existed and the probable involvement of other organs. In cancer of the cecum, the small intestine may be anastomosed to the descending colon, thus relieving the irritation from the feces passing over the ulcerated area. If the cancer is not too extensive the involved intestine may be resected. In cancer of the left colon resection offers the best prospect of cure. So many methods have been devised that the surgeon has wide choice in the selection of procedure. When possible a preliminary colostomy should be done.

Cancer of the small intestine and the colon spread to the lymph glands located opposite the primary growth, then upward until the channels are blocked. After this there is a retrograde process, filling any or all the mesenteric channels. Occasionally spread takes place directly through the blood stream to distant parts of the body.

It is stated that about 7,000 people in the United States die annually of cancer of the rectum. Max Cutler says that next to the stomach it is the most common site of gastrointestinal cancer. It is more frequent in men than in women and usually occurs between the ages of 40 and 70.

In the Georgia Baptist Hospital and State-aid series there were 139 cancers of the gastrointestinal tract: 32 or 23 per cent were in the rectum, as compared with 29 or 20.8 per cent in the stomach, 45 or 32.4 per cent in the right and left colon, and 3.6 per cent in the esophagus. The remainder of these lesions were in the liver, gallbladder, and pancreas.

Cancers of the rectum are located at the

rectocolic junction, in the ampulla or dilated portion, and in the anal canal. Those at the rectocolic junction are usually of the infiltrating type, closely resembling those in the left colon. They extend around the circumference of the bowel but not in a longitudinal direction; a crater-like ulcer, with raised brawny margins, soon forms at the site of the primary lesion. Infiltrating the muscular coat it produces contraction of the bowel so that obstruction sometimes occurs without previous warning except perhaps a change in the bowel habit; that is, the patient may have found it a little more difficult to get the accustomed result from a cathartic or there may have been periods of diarrhea followed by constipation.

In the ampulla the lesions are more likely to present a papillary or wart-like growth which soon breaks off, leaving a raw surface to become infected, ulcerate, bleed freely and be the cause of pain and straining at the stool. They rarely cause obstruction, but they always infiltrate the muscular coat causing early fixation of the rectum to the base of the bladder.

Those in the anal canal are often mistaken for "piles." A doctor consulted may fail to make an examination, instead giving the patient some "pile salve" which soothes him into false security while a deadly disease extends in every direction, soon to be beyond hope of cure.

Every patient complaining of piles, a bloody discharge from the rectum, bloody flux, chronic dysentery, alternate diarrhea and constipation or, indeed, any change in bowel habit should receive a most careful examination. The finger should be passed as high as possible into the bowel; if nothing is detected, a speculum or proctoscope should be used to visualize any change in the character of the mucous membrane and to determine the source of the trouble. Feces should be examined for parasites of various kinds that might cause disturbance in the lower bowel. It may be necessary to do a biopsy to determine the true nature of the lesion. If a diagnosis of cancer is made and the lesion is in an early stage, surgery is the treatment of choice. It is often surprising to see the good results obtainable when the operation is carefully and thoroughly done. Radium and x-ray are recommended by some physicians, but have been disappointing in their results.

Spread from the rectum occurs through the lymph channels accompanying the blood vessels that supply the bowels and cells may reach the liver or they may pass up behind the heart to reach the neck.

*Cancer of the Liver and Gallbladder.* Primary cancer of the liver is rare in this country. However, it frequently occurs among the native coolies and laborers of the Asiatic subtropical islands and seacoasts where cirrhosis of the liver is encountered as a result of imbibing the strong alcoholic beverages in common use in those countries. It causes few, if any, early symptoms except when it arises from the intrahepatic bile ducts; then jaundice is early and persistent. Secondly, the liver is one of the most common sites for the lodgment of cancer cells scattered from primary lesions of the stomach, pancreas, large intestine, and rectum; the bladder and prostate gland, the breast and sometimes the lungs. It may be invaded by direct extension from cancer of the gallbladder.

In either primary or secondary invasion the diagnostic signs and symptoms are insidious and indirect. There may be loss of appetite, weight and strength with a marked feeling of lassitude. Later, the liver may be felt as a nodular mass below the margin of the ribs. There will be abdominal dropsy, shortness of breath and, as the bile ducts become involved or are occluded by pressure, there will be jaundice.

Up to the present time all methods of treatment have proven ineffective. The only thing that can be done is to make the patient comfortable with sedatives and remove the abdominal fluid when it causes inconvenience. It will re-accumulate and require frequent "tapping."

Cancer of the gallbladder is quite frequent.

It occurs three times as often in women as in men, and usually in those past 40. The lesion may be located in the fundus, body or cystic duct. In the majority of instances the patient has suffered from symptoms of inflammation of the gallbladder and gallstones. Indeed, these conditions may be considered as the prime causes, though many people who have gallstones do not have cancer of the gallbladder. Cancer is rarely suspected until a mass is felt in the region of the gallbladder; then it is generally too late for a cure to be

effected. Jaundice will not be present until the hepatic or common ducts are involved or occluded by pressure. The chief symptoms are those of gallstone colic and loss of appetite, weight and strength.

As the disease progresses it invades the liver to a greater or less extent, then spreads to the lymph drainage area. Adhesions to the stomach and intestine may occur and cause great distress.

If people could be induced to have proper surgical treatment for conditions already enumerated, cancer of the gallbladder would become a much less frequent disease. If the gallbladder can be removed before extension of the cancer to the liver and neighboring structures or before the cells penetrate the lymph channels, a cure may be effected.

*Cancer of the Pancreas.* Fortunately malignant lesions of the pancreas are infrequent. There were only 8 in the Georgia Baptist Hospital series of 1,514 cancer patients, and none in the 1,059 State-aid cases. These lesions may occupy the head or the body of the pancreas; the tail is rarely affected.

It is almost impossible to make an early diagnosis, as the clinical symptoms are vague. Perhaps one should suspect cancer of the pancreas in an individual who complains of constant high backache, loss of energy, and general lassitude. There may be "indigestion" with gaseous distention. Jaundice appears early and is perhaps the first symptom for which the patient seeks medical advice. The common bile duct runs through the head of the pancreas before emptying into the intestine; consequently, pressure of the cancer as it increases in size produces obstruction and a progressive jaundice, whereas obstruction due to a common duct stone may be intermittent. In cancer of the pancreas the gallbladder is distended; with a common duct stone it is contracted and fibrous. As the disease progresses the pain in the back increases in severity and upper abdominal pain develops, which may be so severe as to cause collapse.

Cancer of the pancreas spreads through the lymph drainage area to adjacent structures and to the retroperitoneal lymph glands, all of which adds to the pain and distress of the individual.

The principal diagnostic features are: general lassitude, high backache, jaundice deepening from day to day and without remis-



sion, severe itching over the entire body, and then pain in the mid-abdomen, clay colored stools in which the food products usually digested by pancreatic ferments are present; also, some rigidity of the upper abdominal muscles and a palpable gallbladder with or without enlargement of the liver. Later, there is ascites, and, finally, shortness of breath, due to pressure of fluid on the diaphragm.

Treatment is confined to palliative measures only. If the itching from the jaundice is unbearable the gallbladder may be anastomosed to the small intestine or the stomach. This procedure may bring relief for several months, but has no curative effect.

*Cancer of the Genito-urinary System.* In the combined State-aid and Georgia Baptist Hospital clinic series of 2,573 patients there were 79 cancers of the genito-urinary system distributed as follows: kidney 12, penis 5, prostate gland 26, testicles 10, bladder and urethra 26.

A cancer of the kidney may be located in the substance of the kidney or its pelvis. In either location it may cause hemorrhage as a first symptom. It is therefore our duty to emphasize the importance of blood in the urine and endeavor to locate its cause at the earliest possible moment. In order to do this a cystoscopic examination is necessary. If the lesion is in the bladder it is easy to locate. If in the kidney, pain in the affected kidney region may give a much needed tip. The ureteral orifice on the affected side may be swollen and everted or we may be able to see the blood entering the bladder directly from the ureter. A retrograde pyelogram should be done to determine the size and shape of the kidney pelvis, etc. Lastly, we may be able to feel the diseased kidney. If, however, a diagnosis can be made and treatment begun before a tumor can be felt, the patient has a much better chance of recovery. Only too frequently we are not consulted until there is a large mass in the flank and often the tumor is fixed.

Cancers of the kidney occur in "two widely separated age groups": one type in young children, the other during and after the fifth decade of life. In children the lesion is quite radiosensitive; in older people it does not respond to irradiation.

As already intimated, an early diagnosis is more essential, if possible, in cancers of the kidney than in other organs. If there is hearty

cooperation between doctor and patient many cases may be recognized early. Any blood in the urine, found microscopically or visible to the eye, should be most carefully investigated. If it cannot be readily explained a cystoscopic examination should be made and repeated until its source is determined. Tumors of the kidneys spread so early and widely that they reach an uncontrollable stage almost before we are aware of their presence. Let us repeat—the danger signs are: blood in the urine, the presence of a mass in the region of one kidney and, lastly, pain extending down toward the rectum and bladder. The essential procedures are: x-ray examination to eliminate a kidney or ureteral stone, a cystoscopic examination to eliminate a bladder lesion and often to disclose the source of the blood from the kidney or ureter, then a pyelogram. All of these may have to be repeated.

If the diagnosis is made early and no secondary foci demonstrated by x-ray, surgery should be employed at once. Only in certain types found in children will x-ray be of benefit.

*Cancer of the Bladder and Urethra.* There were 26 cases of cancer of the urinary bladder and urethra among the 79 cancers of the genito-urinary organs in the series from which we have quoted. As a rule cancer of the bladder is found in the floor; that is, around the openings of the urethra, the two ureters, and in the space known as the trigone. However, it may be found in any part of the bladder.

Cancer of the bladder occurs most frequently during and after middle life. Analine dye workers are attacked more frequently than any other group of industrial people; cancer of the bladder has also been produced experimentally by the use of these dyes. One definite cause of cancer of the bladder is the ova of the parasite *Bilharzia haematobia* which is found in marshes and river beds of subtropical countries, especially in Egypt where it is known to have existed for the last 3,000 years.

The majority of cancers of the bladder begin as papilloma or wart-like growth which increases in size rapidly, so that it may fill the entire bladder or slough and ulcerate to become infected and produce a rapid toxemia. This type does not, as a rule, infiltrate the bladder wall; however, it spreads through the lymph channels to the drainage area. Another

type begins as a flat ulcer, infiltrates the bladder wall and adjacent tissues and soon fixes the bladder to the prostate gland and rectum. A hard brawny rim is built up around the primary focus which ulcerates, giving it a crater-like appearance when seen through the cystoscope. Both types spread to the pelvic and retroperitoneal lymph glands, the liver, lungs and often to the long bones and pelvic girdle. Indeed, a pathologic fracture of the rami of the pubis may occur early in the course of the disease.

Bloody urine may be the first symptom of cancer of the bladder or kidneys. In the latter, there is no difficulty or frequency of urination, and no pain. The quantity of blood in the urine may vary greatly; sometimes a small papillary growth bleeds profusely and a large infiltrating ulcer very little. So, the amount of blood is no indication of the extent of the lesion. Pain will depend to some extent on the location of the lesion.

A definite diagnosis of cancer of the bladder can only be made by means of a cystoscope, through which a section may be removed for microscopic examination. A papillary growth may be benign; an ulcer tuberculous or even a simple infection.

Treatment depends upon the type. A pedunculated, wart-like lesion may be removed with an electric loop, the base cauterized, then radon seed planted around the area. If the lesion is in the vault of the bladder a wide excision may be done. In advanced cases the ureters may be transplanted into the colon or externally through an incision in the flank and a total removal of the bladder performed. In any case, however, the prognosis is not good. Only a few survive for a five-year period unless the diagnosis is made very early and treatment applied vigorously.

Cancer of the female urethra is fortunately rare. It usually begins at the external opening or meatus in what may be mistaken for a caruncle. It grows around the opening and back along the urethra toward the bladder, infiltrating the anterior vaginal wall so that pressure of the finger along the course of the urethra discloses the infiltration. A biopsy is the surest method of diagnosis.

Treatment is best accomplished by the early use of radium. A mold of dental wax may be fashioned to receive the radium, which should

be inserted into the urethra and the vagina in such a manner that it can be held firmly against the vault. The prognosis is not favorable because the disease spreads early to the adjacent lymph glands and later to the pelvic and abdominal regions.

*Cancer of the prostate gland* is a disease of advanced life. It reaches its peak in individuals between 70 and 80 years of age. It may occur as early as 50 or as late as 90. It is more frequently seen in connection with benign hypertrophy. In early cases the malignant area is usually located along the posterior border or in one lobe. It is rarely bilateral. It has a nodular hardness in contradistinction to the uniform outline of the benign hypertrophied gland. As the disease advances it involves both lobes and infiltrates the surrounding structures. If every individual past 60 would have a frequent check-up of the prostate by someone who can recognize the clinical signs and symptoms of early malignancy, many lives could be prolonged and much suffering prevented.

There were 26 cancers of the prostate among the 79 cancers of the genito-urinary tract in our series. The usual early symptoms are those of hypertrophy of the prostate with possibly greater frequency and more difficulty in voiding. Blood is rarely seen in the urine. These tumors spread early to the bony walls of the pelvis and sometimes the first indication of cancer of the prostate is a pathologic fracture of some of the pelvic bones.

Early diagnosis is difficult and strictly clinical. When the signs outlined above are detected, cancer should be strongly suspected. With advanced cases a prostate of stony hardness is felt frozen to the pelvis. Prostate stones may be mistaken for a malignancy, but can be differentiated by means of x-ray.

Treatment at present is best accomplished by radical surgery. Hugh Young has been able to accomplish more than any other urologist in this country. His articles and case reports are highly recommended to anyone wishing to pursue an extensive study of the subject. However, Keyes, Ferguson, Bumpus, Wildbolt, and a series reported from the Memorial Hospital are all interesting. The use of radium is being recommended by some; but, to date, there has not been sufficient experience to evaluate it.

*Malignant tumors of the testicles* are fatal unless recognized early and treated promptly and radically. However, there is a group of tumors characterized by a slow clinical course; these rarely recur if thoroughly removed. The more malignant type occur in young men, spread early and extensively, and increase in size rapidly. They are painless, in contradistinction to epididymitis and orchitis or even tuberculous enlargements. Max Cutler says: "Any painless swelling of one testicle in a young man should immediately arouse the suspicion of . . . malignancy and receive serious attention." Fortunately, the Aschheim-Zondek test is quite often positive in certain types of malignant tumors of the testicles and should be tried immediately in every case.

If a positive diagnosis is made the most radical surgery should be employed, preceded and followed by x-ray treatment. In this way a few patients can be cured. The final outcome depends, as we have previously said, on the doctor who sees the patient first and on the cooperation given by the patient.

Cancer of the penis occurred 5 times among the 79 cases of the genito-urinary system in the State-aid and Georgia Baptist clinic series. These lesions are more frequent after 40, but do not occur as late in life as some others in this system. They are much more frequent among individuals who have *not* been circumcised. Indeed, there is a marked contrast in the occurrence of cancer of the penis among the races of India: In the Hindus who do not practice circumcision as a religious rite cancer of the penis represents about 10 per cent of skin cancers; in the Mohammedans, who are circumcised like the Jews, one is scarcely ever seen. In a series of 1,000 Jewish male patients with cancer of various parts of the body, not one had cancer of the penis. This is greatly in favor of circumcision as a public health measure.

Cancer of the penis is usually located at the angle between the prepuce and the gland. In the early stage it often resembles a chancre (the initial sore of syphilis). It is painless but the margins are not so indurated as those of a syphilitic sore. A dark field examination for spirochetes will aid in the differential diagnosis. Again, it may begin as a small blister-like sore that may be confused with a herpetic ulcer.

In many cases the progress is slow and painless, which may account for the advanced stage in which most cases are seen. They spread *slowly* to the inguinal glands, then up the iliac chain to the abdomen and thoracic viscera.

An early cancer of the non-infiltrating type can be cured with radium properly applied. If the lesion is at all advanced and the patient's condition will permit, radical surgery should be advised. If the patient is over 50 it may not be necessary to remove the testicles; but in younger men this should be done along with a block dissection of the inguinal region.

In performing this operation for an advanced case, an incision over the perineal urethra in front of the external anal sphincter is made, the corpus and urethra are isolated and incised near the scrotum, then brought out through the incision and anchored to the skin. The crura are then located and stripped from the rami of the ischium. Lastly, an incision around the penis may be made, the suspensory ligament incised and the penis pulled forward until delivered. In extensive involvement the steps may be reversed and the scrotum split along the median line. The most important feature is to secure the urethra in the perineum and insert a full-size catheter into the bladder in order to insure a clean non-infected perineal wound.

If an early diagnosis is made and intense radium treatment used or, in more advanced cases, if radical surgery is used, the prognosis is fair; some patients survive as long as 15 years, to die finally of some other disease.

*Cancer of the respiratory organs:* larynx, bronchi and lungs. Cancer of the larynx is more frequent than a casual observer would imagine and deserves far more attention than has been given it. It may be cured without any great impairment to breathing or the voice, provided an early diagnosis is made and the proper treatment applied in the early stage. There were 10 cancers of the larynx in our State-aid and Georgia Baptist Hospital series. Some of these were well advanced before seen at the clinics.

It is strange that cancers located in a tube or box of less than 2 inches in length and 1 inch in diameter should show such varied characteristics as lesions in this location exhibit. In discussing them we cannot do better than to follow the summary given by Max Cutler (*Cancer: Its Diagnosis and Treatment*; Cutler and



Buschke, W. B. Saunders Co.). He says: "A precise diagnosis as to the point of origin is essential." A cancer of the larynx may be located: (1) in the vestibule; that is, the space between the epiglottis and the false cords; (2) in the ventricular cavity—the space between the false and true vocal cords; (3) on the true cords; (4) in the space below the true vocal cords.

Cancers in each of these locations differ in character, speed of growth, and the time and extent of spread. They also differ in their amenability to treatment and in their prognosis.

A cancer of the vestibule grows rapidly. Its first major symptom is usually difficult breathing. However, an enlarged gland in the neck may be the first indication of its presence. It rarely produces hoarseness, but spreads rapidly throughout the lymph drainage area.

When located in the ventricle—that is, between the false and true vocal cords—cancer of the larynx develops silently until it fills the space and encroaches on the lumen of the larynx. Then it, too, causes difficulty in breathing. It infiltrates the cartilages and the angle between. An early cancer in this location is easily overlooked unless the throat is well cocaineized and a laryngoscope is used, so that the false cords may be pulled up and the space thoroughly visualized.

Cancer of the true vocal cords constitutes the majority of laryngeal lesions. As a rule it develops on the margin of one cord, but may encroach on the anterior angle and spread across to the other side. In this location it is difficult to detect by a simple mirror examination.

Hoarseness is the first symptom and often the only one for many weeks. Fortunately, in this location the growth is slow. It rarely spreads to the lymph drainage area and may be present for months without causing serious inconvenience, except hoarseness.

Cancer of the subglottis begins and spreads from beneath the vocal cords. It does not ulcerate until quite late, when it involves the inferior surface of the vocal cord, spreads to the cartilage and causes hoarseness, pain and many other distressing symptoms. The only treatment of value is total laryngectomy. In all cases a biopsy should be made previous to treatment.

Treatment of laryngeal cancer depends on the location of the lesion and the stage at

which the patient is seen and the diagnosis made. If a cancer on the true cord is seen early it can be successfully treated by simple surgery. When stenosis is present but the lesion still local, a laryngectomy is advisable. If we have been able to diagnose the condition as a vestibular lesion, x-ray alone can be used and may give favorable results even in advanced cases.

*Primary cancer of the lungs and bronchial tubes.* For the past decade cancer of the lung has been increasing at a rapid rate. Many theories have been advanced to account for this, as it is not a question of better diagnosis. There is an actual increase, shown by postmortem records at local and metropolitan hospitals.

It makes little clinical difference where the lesion is located, except in those rare cases which involve the periphery of the lung. Such lesions may be removed surgically. A large number of lung cancers begin in the bronchial tubes and, if suspected early, may be greatly benefited and sometimes cured. In these cases a bronchoscopic examination may enable a small wart-like growth to be clipped off and radium applied, or the base may be cauterized. In either instance, much benefit may result to the patient. Unfortunately, such lesions are not often seen until the lung is well filled with the tumor.

When the lesion is in the larger bronchial tubes a peculiar hollow cough is persistently present. There is difficulty in breathing and, if one of the larger tubes is involved or blocked, there will be collapse of the lung aerated by that particular tube. In such cases an x-ray examination will reveal the true nature of the condition. When the growth is limited to the glands around the large tubes, x-ray may not only reveal the nature of the disease but may be of benefit from a treatment standpoint.

Secondary cancer of the lung is quite common. The lungs may be filled with nodules or there may be one or two large masses located in the central parts or in the lymph glands between the lungs and around the heart.

Malignant tumors (cancers) of the chest or thorax vary in character and clinical symptoms according to their location. It is a satisfaction to be able to make a correct diagnosis,

but there is practically no efficient treatment now known. However, research work is being pushed along this line and we hope that in the near future something will be developed.

Certain malignant tumor growths located between the lungs—lymphosarcoma, leukemic glands and Hodgkins' disease—will respond to x-ray treatment for a while at least, and all tumors located in the chest should be given this therapeutic test before too grave a prognosis is made.

The thymus gland which is located around the bronchial tube between the upper part of the lungs is quite large in the unborn baby but normally disappears after birth. Tumors of this gland are exceptional but they are important when they do occur. Diagnosis is made from the clinical symptoms and x-ray studies and depends on elimination of other growths known to occupy this location. They yield for a while to x-ray, but recur until they become non-radio sensitive then the patient succumbs to suffocation due to pressure on the bronchial tubes.

The *thyroid gland*, located in front of the bronchial tube just below the larynx and above the breast bone, is one of the most important glands in the body. It governs the consumption of oxygen and the tissue changes, the heart beat and nerve reactions. When it is too active one "burns up" and when it is inactive the mental forces are dulled, fat is deposited in certain parts of the body, the skin becomes dry and scaly and many other important changes occur.

This gland is the seat of two varieties of tumors: one benign, which may attain large size without doing any considerable damage except that it may become cancerous; the other, true cancer, which develops insidiously and is most often found by the pathologist when a benign tumor is under examination. Whenever a tumor of the thyroid presents nodular or hard masses anywhere on its surface it should at once arouse suspicion and its removal be recommended. These tumors are characterized by widespread dissemination through the blood stream. Wart-like growths, invading the veins, are broken off and float as emboli to all parts of the body.

An excellent plan is to remove all tumors of the thyroid gland as soon as possible after

their discovery, for benign tumors are definitely pre-cancerous. When this fact is sufficiently impressed on the public the prejudice against operations on the thyroid will largely disappear.

*Cancer of the pleura and peritoneum.* It is doubtful that the pleura and peritoneum are ever the seat of true primary cancer. However, there may be a diffused growth of endothelial cells, malignant in character, which sometimes spread like moss on the bark of an old tree, covering the entire surface of either the pleura or the peritoneum. It is said that the cells differ greatly in the two cavities, so much so that they are described separately in some textbooks.

Space will not permit a description of these lesions, further than to say that as time progresses they infiltrate the subserous tissues, both parietal and visceral. The expansion of the lungs is prevented and adhesions take place so that the involved area becomes one solid mass with lakes of serous fluid at different points. It is just chance if one of these cyst-like lakes is "tapped" when aspiration is attempted, for x-ray does not differentiate between them and the more solidly infiltrated and adherent areas.

In the abdominal cavity much the same process takes place. The walls of the stomach and all the hollow organs become thickened, and the intestines stand out like rubber tubes against the abdominal wall. Here, too, are areas of lake-like spaces filled with a milky or serous fluid and areas of matted intestines, omentum and mesentery. It is not safe to "tap" the abdomen under these conditions because a lake of serum cannot be differentiated with certainty from a mass of intestine. It has been my misfortune to see three such abdominal patients and one of the pleura. The first symptoms in the abdominal patients I saw were unexplained backache over the lower thoracic area, prostration with increasing abdominal distention, diarrhea, intense abdominal pain—all symptoms gradually growing worse until the end. In one of these patients the abdomen was opened under the impression that the condition was tuberculous peritonitis. Operation probably hastened the end.

X-ray therapy has not given more than

temporary relief. In fact, nothing has been of any lasting benefit.

A condition similar to that described above may be secondary to cancer of the stomach. Indeed, the ovaries may become involved and attain considerable size, even being mistaken for the primary focus. This is more likely to occur in that condition known as "leather bottle stomach," in which the x-ray may show no deformity or so little as to be overlooked. Peritoneal involvement also occurs from cancer of the breast, the body and neck of the womb, the colon and the rectum. Treatment is of little avail, whether the lesion is primary or secondary.

*Tumors of the brain*, benign and cancerous, have been encountered quite frequently in clinics throughout the State. They are found more often in men than in women; the ratio is about 2 to 1. They occur at all ages; 27 per cent of them before the age of 20. During the next two decades they increase in frequency to reach their peak at 40 to 45 years of age.

Heredity may or may not be a causative factor. Head injuries are said by some to be one of the causes; others feel that they only augment the growth of a latent lesion.

Whatever the cause, the type of growth, or the location, a brain tumor should be suspected whenever a patient complains of daily early morning headaches, lassitude, muscular weakness and loss of strength. As the tumor advances in size other symptoms develop: intellectual dullness, general or localized convulsions, paralysis, and blindness. Indeed, a most forlorn picture, beyond hope of help, soon develops. Therefore, if any individual begins to complain of daily headaches it is our duty to bring to bear all of the scientific knowledge available to medical science in order to obtain an early diagnosis and begin the proper line of treatment.

*Spinal cord tumors.* A tumor of the spinal cord may occur at any age and may be located at any point between the skull and the lower end of the cord. Girdle-like pain radiating along the spinal nerves is one of the earliest symptoms. Later, an area of hyperesthesia develops, while below this there is anesthesia, loss of function and finally paralysis. The upper limit of the anesthesia and paralysis is usually 2 or 3 inches below the level of the

lesion. A spinal cord tumor can only be suspected from the clinical symptoms. The diagnosis must be confirmed by highly technical laboratory procedures which cannot be outlined in an article of this scope. Many cord tumors can be permanently cured if diagnosed and properly treated during the early stages.

Tumors of the nerve trunks are not frequently seen in this section of the country. However, they are of more than passing interest, for should one be carelessly excised the area supplied by the nerve from which it arose would be paralyzed. Nerve tumors are rarely malignant and may be removed by careful dissection. They may be single or multiple and are very annoying. If situated on a nerve trunk where pressure is likely to be more or less constant, they should be removed, even if the nerve has to be resected. When located in an area surrounded by loose, cellular tissue they are harmless, but when located on one of the branches of the trigeminal nerve or in the gasserian ganglion they cause pain that cannot be described.

For years we have taught that any tumor or mass located along the course of a large blood vessel should not be incised until a definite diagnosis has been made, for it may be an aneurysm. It is equally true that a tumor located in the course of a large nerve should never be removed, no matter how freely movable it is, until a definite diagnosis is made. It may be a neurofibroma.

In some instances the entire body may be covered with flat or pedunculated neurofibromas. They may or may not be tender and painful. Treatment is of little avail except to make the patient more comfortable and remove any growths that begin to ulcerate. Mass removal is of no avail.

A tumor known as glioma of the retina may affect the eye or eyes of young children. About 25 per cent occur in both eyes. It may be present at birth or develop any time up to 4 or 5 years. There is no outstanding early symptom. The mother usually notices a peculiar appearance in one or both eyes. The pupil is dilated and appears to show a grayish-white background. This condition has been described as "cat-eyed" in appearance. In older children the eyes are moved restlessly, as there is early interference with sight.



There is no pain, but the eyeball bulges as the pressure from within increases. The tumor soon infiltrates the bones of the orbit and extends backward along the optic nerve to the brain and the child succumbs to brain involvement.

If the condition is recognized early and treated vigorously the prognosis is now much more favorable. When both eyes are involved vigorous x-ray treatment has been quite successful; when only one eye is affected it should be removed as early as possible.

When the fertilized egg or ovum from which one's body is developed is still young a heavy streak of cells is laid down along one margin. From each side of this thickened area three sheets of cells grow outward. The external one of these layers forms the covering of the body and from it develop the brain and nerves and all of the external glands. From the innermost layer the lining of all the hollow organs, the internal glands of the body, the bronchial tubes and lungs are developed. From the middle layer the bones, muscles and all the connective tissues of the body are developed, including the framework of all the glands and structures.

Thus far in this paper, we have studied tumors that arise from either the external or internal layers and the glands developed from them. These cancers make up the vast majority of malignant lesions and are known technically as *carcinomas*. From the middle layer of cells another variety of cancers, called *sarcomas*, arise. They differ in their behavior from carcinomas and do not, as a rule, affect the glandular organs; they are found in the bones, muscles, connective tissues and lymph glands.

A sarcoma may occur in any part of the body, for all the body structures are held together by connective tissue. However, they are not commonly found in glandular organs. Unlike carcinoma, a sarcoma seldom spreads by means of the lymphatic vessels. Clumps of cells are broken off to be washed away by the blood current, like the cells from a cancer of the thyroid gland, and are scattered all over the body. As all venous blood must pass through the blood vessels of the lungs, it is there that sarcoma cells first lodge when they are broken from the primary lesion and start their journey through the body.

Primary bone tumors are sarcomas. They are found in young people and, unlike tumors in other parts of the body, they cause pain as the first symptom. If people could get the "rheumatism" idea out of their heads many a young person's life would be saved. But whenever pain is felt in a bone or joint "rheumatism" is the first thing thought of and all sorts of remedies are applied, while the sarcoma grows merrily on.

In children and young people pain in the bones and joints is likely to be called "growing pains." If this symptom persists we should not wait for a tumor to form, but should rush the patient off for an x-ray examination. If the bone is at all affected, still further investigation should be made at once, for the sarcoma cells may spread along the canals in the bones until they break through into a vein, whereupon the case immediately becomes hopeless.

Swellings involving the bones should not be rubbed or the limb exercised, as this increases the rate at which the cells will be scattered. Fortunately, all bone swellings are not sarcomas. They may be inflammatory (osteomyelitis), syphilitic, or a cystic disease of the bones.

It is often necessary to get a fragment of the tumor for microscopic examination, but great care should be exercised in doing this and treatment should be started at once after such a procedure.

In many forms of bone tumors x-ray has proven of great benefit, particularly in some of the more rapidly growing varieties, Ewing's sarcoma, and in bone cysts. It is somewhat less helpful in osteogenic sarcomas.

Remember, pain is the earliest and most reliable symptom on which an x-ray examination should be advised. A swelling involving the bone, a pathologic fracture (that is, a break without any attending accident) should call for immediate action. A bone tumor is an emergency!

Sarcomas frequently affect the lymph glands, lymphosarcomas. They occur in young people, more often in boys, and involve one group of glands. Hodgkins' disease, on the other hand, involves many groups of glands, usually on both sides of the body. Lymphosarcomas grow rapidly; the patient soon becomes anemic and may run a low grade

fever. Strangely enough, there may be rapid disappearance of the lesion after an acute illness accompanied by high fever. However, the lesions soon recur, and as time goes on spread to other groups of glands, finally to involve the entire lymphatic system. A single group of enlarged lymph glands is the earliest symptom; there is no pain.

X-ray has a beneficial effect, but does not give permanent improvement. After repeated treatments the cells become radio resistant and the patient rapidly declines. Surgery has no place in the treatment of lymphosarcoma.

Hodgkins' disease is characterized by enlargement of the lymph glands on both sides of the body, chest and abdomen or under both arms or in both groins. The swellings are smooth, discrete and movable. Young people are far more often affected than older ones. There is no pain in the early stage; but, as the enlarged glands encroach on the heart and bronchial tubes, there is shortness of breath, fatigue, muscular weakness, and general disability. Untreated patients run variable courses, but all terminate fatally. Surgery is of no avail. X-ray gives only temporary relief. There is no definite treatment now known.

Leukemias are of two general forms: lymphatic and myelogenous. They may be acute or chronic. Age incidence varies, but the disease is more common in the young. The differential diagnosis between leukemia, lymphosarcoma, and Hodgkins' disease is at times difficult; again, it is easy. A careful study of the blood is important. The removal of an isolated nodule for microscopic study and x-ray examination of the chest and abdomen is equally essential. In making a diagnosis the possibility of tuberculous lymph adenitis, syphilis, and chronic granulomas must be borne in mind.

Sarcomas also affect the muscles and fascia. Here they present a smooth, firm, but not hard, mass that may be mistaken for an abscess unless we remember that it is not tender and causes no pain. There is no redness or local heat, all of which are present in an abscess. A sarcoma in the muscles and fascia of the arms, thighs or legs is not uncommon. If given preoperative treatment and then removed, a reasonable number can be cured. However, if left for any length of time they

are scattered and may recur near the scar or in hundreds of nodules throughout the body. The greatest care should be exercised in manipulating any of these, for they are prone to spread.

It has been said that everything except health can be bought. In times past it was believed that sickness was an evidence of Divine wrath sent as punishment for some misdeed or neglected opportunity. Both theories have been exploded.

During the early years of the 19th century our coast towns and cities were devastated by yellow fever. Commerce was paralyzed, industries abandoned, and homes closed while families went away to health resorts. During the Spanish-American War Cuba was a hotbed of yellow fever. Our troops died by the score. After the close of the war Walter Reed took a group of young men down there determined to find out all about yellow fever. His success is demonstrated by the fact that Cuba is now free of yellow fever. The French lost 40,000 lives trying to build a canal across the Isthmus of Panama. Using the knowledge gained by Walter Reed, the United States built the canal and made the Canal Zone the healthiest spot on earth. Demonstrating that health can be bought!

*Health can be bought.* State-aid and systematic education by anti-tuberculosis societies have proven it as regards "the great white plague." Last year there were only 1,612 deaths from tuberculosis in Georgia, while cancer caused 1,929. Who would ever have expected to see the day when cancer exceeded tuberculosis as a captain of death?

The Medical Association of Georgia has been working for many years in the interest of cancer control. Three years ago the great American Society for the Control of Cancer began concentrated effort in the interest of cancer control. Now their Women's Field Army is well organized and, in Georgia, secured 8,000 members this year. It distributed 100,000 pieces of literature and gave hundreds of lectures and talks to clubs of all kinds.

The 1937 Georgia Legislature enacted into law what is said by United States Public Health authorities to be the best cancer control law ever passed by a legislature. The State Department of Health is now doing all

it can to carry out this law in the best interests of the poor people of Georgia. Cancer clinics have been established in general hospitals in several sections of the State. They are conducted with no overhead expense to taxpayers, and very little administrative expense is incurred by the Division of Cancer Control.

More than 6,000 people now in Georgia have some form of cancer. At least 3,000 of them are not able to secure proper treatment. One-third of these can now be benefited if the proper treatment is given before it is too late; one-third of them can be cured because the disease is still in an early stage. Sad to say, the other third can only be made more comfortable. But in all instances, treatment is of some value to the patient.

During the 13 months that the Division was able to furnish treatment 1,385 individuals were seen at the State-aid clinics. They came from 147 counties. Of these 1,059 had some form of cancer. The whole number, 1,385, were diagnosed and the cancer patients treated at the phenomenal low cost of \$39.08 per patient.

We make no claim for originality in this paper, but have searched the latest available textbooks and medical journals. We have endeavored to deal with malignancies of the most important organs and parts of the body in a way that seemed to us to give a clear but non-technical picture. We have tried to stress the urgency of prompt diagnosis and immediate treatment. We have presented a public health approach to the problem of cancer control and a workable plan for dealing with it. In fact, our whole purpose has been to bring about redoubled effort at cancer control in Georgia.

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## EXTERNAL EAR DISEASES\*

*Particular Reference to Fungoid Type; Preliminary Report*

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In this preliminary report on external ear diseases, with special reference to the fungoid type, we have attempted to determine the incidence of otomycosis, the types of fungi involved and to evaluate clinically some of the newer recommended therapeutic agents for this condition. Only those patients with a definite history of external ear complaints with itching of at least two months' or more duration were included. The cultural work was done in the State Health Department Branch Laboratory in Waycross. No attempt will be made to give credit to all authors who have reported work in this field except to list their names in the bibliography attached to this paper.

In the American literature the most work on fungi of the ear appears to have been done in the Southern states. Fungous or mold infection of the ear known as otomycosis is widely distributed and more common in the warm, moist climate of tropical and subtropical zones but may be found almost anywhere. Heat and moisture in the external ear create optimal growing conditions but the fungi are capable of growing under adverse conditions.

In our demonstrations we shall show the two most common types of fungi found in otomycosis, the *Aspergillus* and the *Penicillium*. Both of these are filamentous in appearance. We shall also show clinical pictures of the disease and a list of reported therapeutic results.

The lesions produced by the different fungi are clinically similar and it is only by cultural methods that they can be classified. It is sufficient, however, to prove their presence because they are also similar in their response to treatment. Many of the molds are opportunists, as it were, awaiting a chance to become pathogens.

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.



A small or moderate amount of healthy cerumen appears to exert a restraining influence against fungus as well as bacterial invasion. Unless dryness or accumulation of the wax occurs, there is usually no itching. Ootomycosis gets a better chance in an unhealthy skin lining of the ear canal made so by improper diet, poor sanitation and the like. Accumulated debris, with its degeneration, makes the chances for mold infection greater. Among the first symptoms is a sensation of a foreign body with itching.

The branching filaments or mycelia of fungi may cause accumulation and plugging of the canal thus causing impairment of hearing, a sensation of stuffiness and, nearly always, itching. The active growth of the molds causes irritation of the superficial layers of epithelium and actual inflammation may arise. It may not even stop here but proceed to excoriation and ulceration of the auditory canal and possibly penetration of the drum head with invasion of the middle ear cavity.

Mild fungous infections of the ear may cause only slightly abnormal physical findings. There may be an appearance of only dryness of the skin and mild desquamation. The magnifying lens of the otoscope is a great aid in examination. Many cases show slight physical changes but give the patient considerable annoyance. Infections of the external ear may be purely fungoid, purely bacterial or a mixed infection. Scratching the ear canal with hair pins, match stems or other objects is quite dangerous in either case. A break in the epithelium gives the infection a deeper footing.

The itching and discomfort in the ear canal may become worse in proportion to conditions present. A purely fungoid invasion commonly affects the surface only and occludes the canal by piling up of mass growth and accumulated discolored debris. If pathogenic bacterial invaders are present, they frequently penetrate the epithelium and cause marked swelling of the skin. This is the type where furuncles are likely to develop recurrently.

We believe that the presence of fungous disease of the ear has no direct relationship with the condition of the skin of other parts of the body. Taenia infections of the foot or seborrhea of the scalp may not have any direct bearing. There is the general principle

of cleanliness and hygiene, however, that offers collected resistance against all these affections.

In this study cultures were made from 50 patients. Of this number 10 yielded positive fungous cultures, 20 per cent positive for fungi. Although this is admittedly a small series of patients, we feel the high percentage of positive cultures to be significant. Of the 10 isolations of fungi in our series, 8 were identified as *Aspergillus* and 2 as *Penicillia*. We are indebted to Dr. C. W. Emmons, Senior Mycologist of the National Institute of Health in Washington, for identifying the species of fungi isolated. The aspergilli are identified by the characteristic arrangement of the stalks or sterigmata, arising from the swollen vesicle or sporehead in a typical ten-pin arrangement. The sterigmata bear the chains of conidia or spores. The penicillia are characterized by having short branches, the metulae, which give rise to the sterigmata and spores. A low power microscopic view of the spore head has the appearance of a brush.

Great care should be observed in culturing fungi, due to the lightness of the fungous spores and the ease with which the laboratory atmosphere may be contaminated with the spores when cultures are handled. By employing wide bottles of Sabouraud's agar instead of Petri dishes, dissemination of the spores may be reduced to a minimum. Swabs from the external ear canals of suspected cases were streaked on Petri plates or bottles of Sabouraud's agar, pH 5.3. It is important to have the agar acid to inhibit the growth of bacteria and allow the fungi to develop. The cultures were incubated at room temperature for at least a month before discarding. Fungi usually grow out in three to five days but occasionally require two or three weeks before growth appears. Occasional positive growths may be missed if sufficient time is not allowed. When a fungous growth did appear it was restreaked on Sabouraud's agar as often as was necessary to obtain a pure culture. This was then identified. Gram-stained direct smears were also made from each ear swab. Often the presence of fungi may be determined by examining a slide preparation of ear debris either by a wet or stained preparation. Cultures are best for accurate identification.

In treatment, the fungi do not respond to

many of the well known bactericides but only to definite fungicides. Many therapeutic agents have been tried, but success has been obtained with only a few. One of the most popular remedies has been some preparation containing salicylic acid. This treatment is credited to Bezold and the prestige of his name has carried authority for it through nearly all the standard textbooks to the present time. The good effect sometimes found from salicylic acid comes from its desquamating action, rather than from a specific action on fungi.

Alcohol, a long favored remedy, has been shown to be non-effective as a fungicide and a rather weak bactericide. It is the safest, however, and is the most gratifying medicine that may be found in nearly any household medicine cabinet, to drop in the ear to allay itching. The good results of alcohol come from its dehydrating effect. Mineral and vegetable oils dropped in the ears are apt to dry out and become gummy, thus forming a nidus for fungous growth.

A great advance in the treatment of otomycosis occurred with the introduction by King Gill, of Metacresylacetate, better known under the trade name of "Cresatin." McBurney and Searcy, of Tuscaloosa, have compiled a table of many therapeutic agents recommended as fungicides. We have reproduced a portion of their list of agents on a lantern slide. Cresatin has proved to be a safe, effective fungicide as well as bactericide. Thymol has excellent specific action but sensitivity of the skin must be anticipated. Alcohol as a solvent for a one or two per cent solution of thymol is good.

Our plan of therapy has been first to carefully clean the ear with minimum trauma and being careful to include the acute angle of the drum head with the canal wall. The canal is then made dry with air softly blown in or by wiping. A cotton tampon saturated with equal parts of cresatin and 2 per cent thymol in alcohol is then placed in firmly but not tightly. Contact with the ear drum is quite painful. This pack is left in place for several hours, preferably twelve or more. When the patient returns the following day, if no skin irritation is present, we prescribe the medicine for home use to be applied with a medicine dropper. If skin irritation is present we prescribe the cresatin alone to be dropped into

the ear. If the patient cannot visit our office on two successive days, we begin with cresatin alone. Itching and much of the discomfort of stuffiness are relieved by the first treatment.

The patient is advised to drop the cresatin in his ears three times daily and return at the end of the week. At this time further desquamation has usually occurred, which needs cleansing. Thymol iodide powder is much better tolerated than the alcoholic solution and this powder is then prescribed to be placed in the ear twice daily for a week. Patients are relieved of all discomfort by this time. A solution of cresatin is kept for occasional home use as a prophylactic for a few weeks. As we have stated, this series is small but results have been most gratifying in treating this very obstinate type of ear affection.

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#### DISCUSSION ON PAPER OF DOCTORS MINCHEW, COLLINS AND HARRIS

*Dr. Arthur G. Fort (Atlanta):* It is quite pleasing to have a paper on this subject inasmuch as we know so little about it.

Immediately after the hurricane in Miami there came to our offices an average of five people a day for a week or ten days, each suffering from aspergillus infection of their ears. The Florida State Board of Health, although demoralized at that time in that location, aided all they could and their reports were to the effect that we had aspergillus infection and the majority of ours were aspergillus fumigatus. After coming back to Atlanta I saw quite a few of these cases and Dr. Sellers, of the Georgia Department of Public Health, was quite kind in helping us to identify these. We had considerable trouble in working out any definite plan for following up this work. There was always danger of contamination at the office. The symptoms as given by the essayist were the symptoms that we all found—that is, itching, ringing in the ear and a feeling of stuffiness.

I think Dr. Collins failed to attach sufficient importance to the danger of this condition. I will cite one case to show what I mean. There was a man who had charge of a railroad tank. His job was to keep the tank filled with water. He worked just above Marietta. He evidently had had trouble for a long time but wasn't in any particular pain. Finally he began to have pain. When he reported at our office the aspergillus had eroded his mastoid bone. After removal of destroyed bone we found he had a splendidly performed radical mastoid operation as result of destruction of bone. It

was interesting to watch him and note the effect climate or surroundings would have. As long as he remained above Marietta in the low section he would have return once every two or three months a certain amount of this trouble. Finally, he was transferred to Copper Hill, Tenn., where there was sulphuric acid in the atmosphere and from that day to this he has had no trouble whatsoever.

Heat and moisture have more to do with preparing the ear for this fungus than any other causes. You will find this condition often among those who work in laundries and bakeries. Of course we realize that the fungi are parasitic and bear the same relation to man that mistletoe does to an oak tree.

I would like to discuss the treatment of this condition. Our treatment at first was to cleanse the ear, get rid of all the fungi we could, by the use of peroxide of hydrogen. That was the most efficacious method we had. Now the theory is that aspergillus will not grow in a dry area. Then we tried to keep the part dry and used infra-red light every time we treated it. That has a tendency to kill the remaining fungi. We preferred to use alcohol and salicylic acid, which at that time and is now recognized as a standard treatment. The greatest trouble with alcohol and salicylic acid is the intense pain it causes when applied. Patients won't use it. When we use it in the office we apply cocaine before the alcohol and salicylic acid. Now we know that the spores are hard to get rid of and lately we have been using, after cleansing the ear and drying it as best we can, 50 per cent solution of silver nitrate, painting the auditory canal, using particular care that we do not touch the drum membrane. In a day or two when the cleansing is over, you usually have a normal external auditory canal.

*Dr. G. H. Lang (Savannah):* This is certainly a very interesting discussion of a condition that very frequently baffles us; because of all the things that disturb the external ear and auditory canal, these fungoid infections are probably our greatest problem. In the series of cases that Dr. Collins reports, although he says fifty cases are too small in number to arrive at any definite conclusions, certainly one is struck by the percentage of fungus infections in his series of 50 cases—20 per cent positive for fungi. I think that perhaps some of us are not quite as accurate in our diagnosis of patients. That is, if Dr. Collins' series is composed of 50 cases in whom there was stubborn external infection, and laboratory tests revealed twenty per cent positive for fungus infections, I feel that I have slipped up on some stubborn infections thinking that they were something other than fungoid infections.

I wonder if Dr. Collins will answer some questions that I have in mind in connection with his research, when he closes his discussion. First of all, were these cases bilateral or was one side or the other involved, and if so, how many were bilateral and otherwise? Then the matter of the age of the patients—how were the cases divided in regard to age? Third, the matter of whether or not male or female patients predominated in the study and then the matter of the length of time occupied in the study—was it a seasonal thing—during the summer months or did the study continue a year or more? Dr. Fort brought out the point about

the liability of it occurring in moist atmosphere. I wonder what Dr. Collins' experience was along those lines. If most of his cases had just one ear involved, it brings up the question as to why just one ear and not both, when the atmospheric condition was the same for both ears. If it occurred on one side oftener, what is the thing that starts the ball rolling, so to speak? I wonder if Dr. Collins has anything to suggest along those lines?

Now as to the matter of treatment. I was surprised, happily so however, to have Dr. Collins say that cresatin is the best mode of attack. My experience has been somewhat different. When I left my hospital some twenty-five years ago, cresatin was a very popular form of treatment, not only for fungoid disturbances but other inflammatory conditions of the ear. I found, however, that I got quite a lot of irritation of the auditory canal when using cresatin to those cases and in my own practice I have continued to use salicylic acid and alcohol.

I, personally, want to thank Dr. Minchew, Dr. Collins and their co-worker, Dr. Harris, for the presentation of this paper.

*Dr. John E. Walker (Columbus):* I have had to struggle with the problem of mycosis of the external canal on several occasions and know the difficulty of cure. About three months ago a case of long standing mycosis of the external auditory canal fell into my hands. Just about that time I fortunately became acquainted with the method of treatment outlined by Dr. Minchew, Dr. Collins, and Dr. Harris. This treatment was carried out. To my gratification, the infection cleared up completely. My experience consisted of only this one case, but I thought it worth stressing that at last we apparently have a satisfactory method of treatment for this severe and disabling condition.

*Dr. H. M. Lokey (Atlanta):* I regret very much that I did not get to hear the entire paper. What I did hear, I enjoyed very much. I think it is rather interesting to note in this mycotic infection that we get the aspergillus type of ear more frequently in moist atmosphere.

Several years ago, when the National Geographic Society and the United States Army Air Corps<sup>1</sup> sent up a stratosphere balloon out West, they exposed media in especially prepared culture tubes at various elevations to determine what bacteria they might find; and at I think something over thirty-five thousand feet, several varieties were found, and among them *aspergillus niger*.

Now, we get, here in Atlanta, a comparatively small amount of aspergillus, or mycosis, during the winter, but during the summer, we have what I call a "swimming hole ear," and we see the infection among the people who go in bathing, especially since the swimming is now done with first one side of the head and then the other under water. In doing this, the swimmer constantly gets water into the ear and the auditory canal stays moist. This affords a media for the growth of the infection.

I was interested in the treatment to note that you state that ointments and oils are bad, and that they encourage the formation of fungus growth, for I had



come to that conclusion myself. I use an alcoholic solution with thymol and benzoic acid and boric acid. If you are not careful, this or thymol and salicylic acid produce softening of the tissue, with irritation, and leave a very sensitive derma that is painful in itself. I get good results from the use of the infra-red lamp. You should caution the patient about scratching the ear; traumatizing and abrasion may cause deep infection.

<sup>1</sup>See "The Scientific Results of the World Record Stratosphere Flight."—Capt. A. W. Stevens, U. S. A. National Geographic Magazine, May, 1936.

Dr. B. E. Collins (Waycross): We certainly appreciate all the interest shown in the discussion of this paper and are glad that it is a subject that appeals to you. I repeat, that the safest medicine to employ because of its dehydrating effect is alcohol. Under circumstances where prescription writing is not convenient, alcohol as a temporary measure is good. If a culture of the external ear debris is desired, an ordinary cotton swabbing of the canal may be sent to the laboratory or the swab may be streaked on any of the common culture media.

This is a preliminary report and we hope to have an opportunity at a later date to report further progress of our studies. We began seven months ago in October, so that most of our work was done during the winter months.

The history of the duration was from two months to five years with the tendency that the shorter the duration the less severe the infection. Seven of the ten positive cases had disease of both ears. The onset was usually slow and insidious.

## TREATMENT OF MALARIA

J. A. REDFEARN, M.D.  
*Albany*

Until the standard quinine treatment of malaria was recommended by the National Malaria Committee some years ago there were many individual plans of administering quinine. The standard treatment of adults for acute malaria was 10 grains of quinine sulphate by mouth three times a day for three or four days, then 10 grains daily for eight weeks. Chronic cases were given only 10 grains a day from the beginning. In pernicious malaria quinine dihydrochloride was given intravenously.

Ten or twelve years ago plasmochin was employed in the treatment of malaria, but proved too toxic when administered in curative doses. However, it was found safe to give grain 1/6 daily for six days, which would destroy gametocytes of all species of plasmodia occurring in man and thus prevent infection of mosquitoes which spread the disease.

Atabrine followed soon and has proven, in the opinion of most authorities, the most sat-

isfactory drug used in treating malaria. It is supplied in tablets containing 1.5 grams each, and three a day are given to adults for five to seven days. In pernicious malaria it may be given intravenously 0.2 gram (3 grains) in 10 cc. of distilled water. It is non-toxic. After completing a treatment, give plasmochin grain 1/6 daily for six days, for atabrine does not destroy the gametocytes as well as plasmochin. Certuna and prontosil have been reported as satisfactory drugs used in the treatment of malaria.

Quinine is now recommended in daily doses of 20 grains for five to seven days, a fairly satisfactory method. An occasional individual with chronic malaria may give a history of fever for many months, with greatly enlarged spleen, and show little response to the drugs usually given. These patients should be given adrenalin according to Ascoli, as outlined by G. Sorge, which is as follows: First injection, 1 cc. of a 1:100,000 solution; second injection 1 cc. of 1:90,000 solution; third injection 1 cc. of 1:80,000 solution and so forth, increasing the concentration to 1:20,000 or 1:10,000, the last dose is given on twenty consecutive days. In case of intolerance a weaker dilution may be used instead of the 1:10,000. The adrenalin must be given intravenously. It frequently reduces the enlarged spleen and destroys the plasmodia, thus enabling the patient to regain good health.

J. A. REDFEARN, M.D.

## PRECAUTIONS URGED TO PREVENT INFECTIOUS DISEASES IN SCHOOLS

The last issue of *Georgia's Health* carried a warning that the opening of schools would bring an increase in the number of infectious and contagious diseases. This always results from congregating of large numbers of people, especially children, at any time, anywhere, and bringing susceptible children into contact either with someone who has an active disease or with a carrier of the disease can only be expected to result in a spread of infection.

This is especially true in the case of the infectious diseases such as colds, whooping cough, measles, mumps, scarlet fever, etc.

We would like to urge all of our citizens to do their duty in protecting their own children, as well as other children, by keeping their child at home if he shows signs of illness at all. Do not send him into a congested school room to spread the disease to other children of the community.

Remember, this is not only advisable for the benefit of your own child. It also protects the school and community against disease outbreaks that should have been prevented.

## THE PRESIDENT'S PAGE

### CANCER AS A PUBLIC HEALTH PROBLEM

The study of cancer is extremely interesting, for it presents many paradoxes. It does not behave the same way in all countries or in all races. There is a marked difference in the incidence of cancer in primitive and civilized races. Even among our own colored people, who formerly suffered so little from malignant diseases, its incidence is constantly rising. Studies have also shown a marked variation in its geographic distribution. As examples, the northern parts of Germany, Scotland and Ireland show a rate much above the average for other countries. Likewise, anatomic distribution varies. In certain parts of Asia and Malay cancer of the stomach is rare, but that of the liver is common.

However, one common phase of the disease is its world-wide increase. According to the best available information, this increase is taking place at a rate of about three per cent per year, and in consequence, has become the second greatest cause of death, being exceeded only by cardiovascular-renal disease. In view of these facts it has assumed a position of foremost importance in the minds of many health authorities.

Believing a health problem can best be solved by health authorities, our State has taken a progressive step and enacted legislation dealing with this subject. We are proud to note that Georgia is one of the seven states having legislative enactments tending to lessen deaths from cancer.

There is evidence on many sides of a growing realization of the public's responsibility in this matter. Creation by Congress two years ago of the National Cancer Institute, and increased interest in legislation all suggest that health education, if kept up, will finally bear fruit. The Medical Association of Georgia, in full cooperation with the State Board of Health, has for many years had a Cancer Commission which has rendered valuable services. Believing education is the first consideration in the solution of all health problems, the Association has sponsored Cancer Week, and has assisted in all other movements for increasing interest in this subject. The State Department of Public Health, with the limited funds at its disposal, has organized clinics in convenient locations for diag-



nosis and treatment of malignant diseases occurring among indigent persons. The concerted efforts put forth have done a great deal in an educational way, and no doubt have had a great deal to do with our improved health legislation.

The public is being constantly reminded of the subject of cancer through the many interesting and novel experiments and investigations which are carried as news items by daily papers and magazines. Bizarre news items always excite public interest, as has recently been noted in the instance of the refrigeration treatment of cancer. Public interest has likewise been stimulated by suggestions as to the value of vitamins and glandular products as prophylactic and therapeutic agencies in the treatment of malignancies. Recent studies of these two agencies encourage us to hope that we may be on the threshold of some valuable measures applicable to our efforts in reducing deaths from this disease. Some recent advances tending to substantiate this opinion have been made by Lacassagne, who succeeded in producing cancer in male mice by the injection of estrin over a long period of time. The most common site of the experimental new-growth is in the mammary gland.

Some may say that so little is known about the ultimate cause of cancer, and so little can be done for its alleviation and cure, it is useless to spend public funds in cancer control. We know that other diseases have baffled investigators and presented what appeared to be insurmountable obstacles, but through intensive efforts they are now fully understood and easily controlled.

WILLIAM H. MYERS, M.D.

# THE JOURNAL

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Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

OCTOBER, 1939

## SOME OBLIGATIONS AND RESPONSIBILITIES OF THE PHYSICIAN

Relief of suffering has been sought by the human family since time immemorial and, today, in the twentieth century of the Christian era, medicine is a well-established unit of civilization. Next to the Doctor of Divinity, there is no other professional man who can accomplish as much for his fellow-man as can the physician.

The study of medicine entails many years of preparation: one must possess many qualifications before being granted the legal right to practice his profession. This is as it should be, but the sanction by the State of a physician's qualifications is only the beginning of his obligations and responsibilities.

What are some of the obligations of a physician? First, his education should be as complete as is practicable. In addition to the requirements of the medical school and the State, he should obtain adequate hospital training. From one to five years' time on the clinical rock-pile in general hospitals, and additional training wherever obtainable if one wishes to do special work, will become a valuable asset in the years to follow. Indeed, it would appear that the average physician has just begun the study of medicine when he finishes the prescribed course of the class A medical school.

The physician's next obligation is to the patient. To him he owes all he can give, but the first principle in this physician-patient relationship is honesty. If a physician is honest with himself, then he will be honest in his dealings with patients. The idea that patients like to be fooled is erroneous and is an insult to the intelligence of one's clientele, not to emphasize that it carries with it poor practice and sometimes involvement in financial and legal entanglements.

In the physician-public relationship, each physician should make every effort to develop what Dr. Wm. J. Mayo called social

consciousness. Dr. Mayo, in a long and successful professional life, observed hundreds of men and women in medicine and its allied professions, noting their progress, and concluded that one must be frank but at the same time not blunt when dealing with the public. Many physicians have the inherent qualities of social consciousness; some must develop them. Experience is the best teacher of the art.

Another obligation of the physician, one which is important and which pays high dividends in learning and professional contacts, is that he become an active member of his county medical society—the doorway to all medical organizations. He should know well his brother physicians and cooperate with them in all endeavors for the improvement of his profession. Many problems can be, and are, solved by organized medicine through local, state and national societies. A good rule to make is to write and read before some medical society one paper for each year's practice. Post-graduate work and travel are added advantages.

The physician should be a good citizen. In addition to establishing a permanent residence, being a good neighbor and attending to the usual affairs of his community, he should take cognizance of civic problems and lend his efforts toward their solution. He should vote in all elections and use his influence to promote the interests of all of the people.

Medicine is not an exact science, therefore the practice of medicine is a series of compromises with human beings in all their illnesses, abstractions and distractions. But since the practice involves life itself, then it is the duty of each physician to think of life and dream and work for better lives. In all of his thoughts and actions he will do well to keep in mind Sir Wm. Osler's little book, "A Way of Life." In it are the following words:

Listen to the Exhortation of the Dawn!  
Look to this Day!  
For it is Life, the very Life of Life.  
In its brief course lie all the  
Varieties and Realities of your Existence:  
The Bliss of Growth,  
The Glory of Action,  
The Splendour of Beauty;  
For Yesterday is but a Dream  
And Tomorrow is only a Vision;  
But Today well lived makes



Every Yesterday a Dream of Happiness,  
 And every Tomorrow a Vision of Hope.  
 Look well therefore to this Day!  
 Such is the Salutation of the Dawn!

### TREATMENT OF SIMPLE FRACTURES

The treatment of the simple fractures following the immediate emergency treatment is reduction and maintenance of reduction. This may be accomplished in a great variety of ways but the principles are the same.

If overriding of the fragments exists traction must be applied to overcome muscle pull. When the shortening has been corrected it may be necessary to apply forces to the sides of the fragments to bring them into apposition if displacement exists. It should be remembered that the long bones are encased in a muscle cylinder whose tendency is to mold the fragments into apposition if the muscle pull is balanced. If there is angulation of the fragments without displacement, as in the greenstick fractures, force and counterforces with or without traction applied to the sides of the fragments will accomplish the reduction.

When reduction has been accomplished it must be maintained until union has become firm enough to prevent its loss. The most widely used and satisfactory means of maintaining reduction is with plaster of Paris casts or splints. Plaster of Paris casts or splints can be made to fit the individual patient, are easily applied, economical, and can always be at hand for immediate use.

No matter what methods are used in the treatment of fractures the underlying principles are the same. In just about every surgical or orthopedic journal there is an article or advertisement describing some new form of apparatus or instrument designed for the reduction, maintenance of reduction, or both, of some type of fracture. Each instrument or piece of apparatus has a value dependent upon the individual using it. This is an old axiom. No instrument or apparatus will itself, as we are sometimes led to believe, reduce a fracture or maintain its reduction. It can be used successfully only in the application of the fundamental principles of the treatment of fractures.

There are so many types of splints, pins, nails and plates now on the market that a

very large store-room would be necessary to keep all on hand. This is even impossible for the surgical supply companies. The expense is prohibitive for the individual. Many of the hospitals are gradually acquiring a stock of the newer types of these mechanical aids. It is impossible for any one institution to keep available for immediate use every type of instrument and apparatus as it appears on the market. Each physician treating fractures should learn what types of fracture material are best suited to his individual needs and should be familiar with them before he obtains them. Likewise, every hospital and institution should determine what types of fracture apparatus are needed by the physicians treating fractures there. When this has been determined great effort should be made to obtain those instruments and appliances really in demand because, when correctly and judiciously used, mechanical aids are a great help in obtaining good results with less effort.

The instruments and apparatus for carrying out the standardized methods of treating fractures should be available for all those treating fractures, but no one should be led to believe that any trick-gadget will do what he cannot do himself. It can only be a helpful means of carrying out a few fundamental principles, and these principles should be adhered to regardless of the type of material used.

JOE H. BOLAND, M.D.

The United States Public Health Service in a release dated September 19, reports that the National Institute of Health succeeded in transmitting a strain of poliomyelitis to the Eastern cotton rat. Dr. Thomas Parran, surgeon general of the United States Public Health Service, stated that the discovery was timely since the war would interfere with the importation of monkeys which to date have been the only susceptible experimental animals for poliomyelitis.

The virus which causes poliomyelitis has been carried through seven transfers in this rodent species.

"The discovery of a cheap experimental animal that can be readily reared in captivity may be expected to facilitate further studies of infantile paralysis, including the search for a possible cure."

"Symptoms produced in the rats are a counterpart of those observed in children in that one or more limbs or even the respiratory muscles may become paralyzed. Virus from the second and fifth rodent transfers produced typical experimental poliomyelitis when returned to monkeys. The results are a continuation of studies begun in 1937."

## GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

## DIPHTHERIA IMMUNIZATION

Last month this space was devoted to a discussion of the Georgia life loss from diphtheria. It is apparent that we are experiencing a lag in translating accepted immunologic knowledge into maximum results toward lowering the incidence and fatality of this disease. A death rate more than 50 per cent higher than the comparable rate for the United States indicates ample room for improvement. The greatest need is further and more convincing education of the public as to what the profession has to offer in the way of immunization.

Especial emphasis must be placed on the fact that 65 per cent of cases, and 75 per cent of deaths in Georgia, occur in children under 5 years of age. Many parents believe that the proper time for immunization against diphtheria is upon, or just prior to, entrance to school. Schick testing shows that perhaps half of the children have acquired a natural immunity by age 10. It is from such children, who have been left to the mercy of chance and their own resistance to repeated exposures, that diphtheria has culled the vast majority of its victims before they reach school age.

During 1937 and 1938 the Georgia Department of Public Health distributed toxoid for the immunization of approximately 152,000 children, at a cost of about \$11,400. During the same period diphtheria antitoxin, sufficient to treat 2,500 cases, was distributed at a cost of \$18,000. An additional 240,000 children could have received toxoid for the cost of the antitoxin needed to treat these 2,500. Of course antitoxin must be used when diphtheria occurs, but for the same distributing agency to spend 50 per cent more meeting a demand for a therapeutic product than is spent to meet demand for an agent which largely prevents the need for treatment is not only uneconomical but likewise less productive of accomplishment.

Controversial reports and opinions have tended to produce considerable uncertainty regarding the relative merits of different immunizing agents, and of differing number of doses of the same agent. Although no one expects 100 per cent efficiency, the occurrence of several instances of failure naturally produces distrust of any particular method, which indictment is perhaps magnified by the fact that the individual has restricted opportunity for controlled comparisons with other methods. Consequently we are confronted with several emphatic opinions as to preference, each equally well supported by good authority.

The criterion by which a method of diphtheria immunization should be judged is the extent to which it will prevent diphtheria, not whether or not the Schick test be reversed, nor the particular level to which the antitoxin titer of the blood may be raised. Unfortunately comparisons must necessarily be based on inference from these two methods of measurement, of which the latter would seem to contribute more nearly direct information.

Recent extensive investigations by Volk and Bunney seem to coincide with the practical experience of others and serve to define a fair statement of apparent relative merits. Working with identical toxoid, one portion "plain" and the other alum precipitated, and using titration of the blood antitoxin content prior to and at several intervals following administration, their reports indicate the following preference in the order of efficacy:

1. Two doses of "A.P." toxoid at 3-week interval.
2. Three doses of "plain" toxoid at 3-week interval.
3. One dose of "A.P." toxoid.
4. Two doses of "plain" toxoid at 3-week interval.
5. One dose of "plain" toxoid.

There seems to be ample evidence that, for maximum likelihood of protection for any individual, either two doses of "A.P." or three doses of "plain" toxoid should be chosen. For mass application, however, choice is influenced by certain considerations of a practical nature, such as the relatively greater cooperation secured for a one-dose procedure. One dose of "A.P." toxoid apparently evokes antitoxin response in more than 90 per cent of instances, and for the present seems to represent the best practical choice for routine use on a group basis.

Due to the fact that inherent immunity, usually present at birth, is not lost for some six months, and that during these months response to antigen is poor, the optimum age for toxoid administration lies between six and nine months, and should be routine for all infants. Those not already so protected should be considered routine candidates for toxoid until the age of 5, after which the possibility of naturally acquired immunity is sufficient to indicate "pre-Schick" testing, immunizing only the positive reactors. "Post-Schicking" should be done about 6 months after toxoid is given, and if the test is positive the immunization repeated.

Toxin-antitoxin mixtures practically have been displaced by toxoid. Such a mixture is far less effective and its present use is mainly limited to older children and adults, in whom severe reactions sometimes follow the use of toxoid.



The use of prophylactic dosage (1,000 units) of antitoxin for suspects or exposures is fairly common in Georgia. Such a practice is not only costly in material, but under usual circumstances is potentially costly in terms of results. Temporary passive immunity is conferred thereby, but lasts only two or three weeks. At the end of this time, the child is again susceptible, and often runs the same exposure risk as before. Serum sensitivity may be produced by the use of antitoxin prophylactically, sufficient to preclude therapeutic use if the child develops diphtheria subsequently.

Where weakness or other illness is a factor, or where the child is not reasonably nearby, these disadvantages may be outweighed by the need for reliable temporary protection. However, the usual exposure is more safely handled by repeated observation (*at least daily*) for signs of the disease, and the giving of an adequate therapeutic dose of antitoxin if such appears.

Of course, if the "exposure" actually has diphtheria at the time, the 1,000 unit prophylactic dose is "a child on a man's errand," and might better be deferred. Another examination after the lapse of only a few hours (or reports from a laboratory if one is near enough to give immediate service) may show that a therapeutic dose is indicated.

H. J. BICKERSTAFF, M.D.  
Division of Maternal and  
Child Health

#### NECESSARY REPORTS FOR FREE ANTISYPHILITIC DRUGS

There has been much discussion regarding the method for obtaining free drugs, made available through the Georgia Department of Public Health, for the treatment of syphilis. Shown here is a replica of a sheet of report cards, as included in a book of these cards labeled *Physician's Report Blanks*, recently mailed to you. In the accompanying illustration, these cards have been numbered 1, 2, and 3, in order to facilitate the explanation of their use.

Card No. 1, *Venereal Disease Case Report*, serves simultaneously as a card for reporting your venereal disease cases and for ordering free antisiphilitic drugs.

Patients need not be reported on this card by name, but you may use a case number or other identifying symbol instead. Neither is it necessary to check on this card the item asking if patient is unable to pay for treatment, as drugs are supplied for all patients regardless of financial status. All other information requested on this card must be given. Please fill in the county, name of city, date reported, age, color, sex, and marital status of the patient, and check whether or not patient has been previously treated for

the disease. Under *diagnosis* check the stage of the disease when diagnosed. You will note that in this line, for syphilis, there are four places for checking the stage of this disease and a fifth place for prenatal cases. We desire to have a check in this square on all pregnancies.

In the next line are places for reporting the other venereal diseases, namely, gonorrhea, chancroid, granuloma inguinale, and lymphogranuloma inguinale. These have been included on this report card in order to avoid the necessity for a different form for reporting these diseases. Unfortunately, we are not at the present time able to supply free drugs for these infections.

The item requesting financial status need not be checked.

Please be careful to indicate in the space provided therefor, the requested information as to whether or not the patient is infectious. By this term we mean: Does the patient have syphilis in a communicable stage, or at the present time, does the patient have open lesions on his person?

In the next line, provided for ordering anti-syphilitic drugs, fill in the blank designating the size ampoule of Neoarsphenamine you desire, and, if you contemplate giving Bismuth in Oil to this patient, order this at the same time by checking "Yes," in the square asking if this drug is desired. If you do not desire Bismuth in Oil, please check "No."

Sign the card with your name and address, so that the drugs may be forwarded to you. For all patients living in the City of Atlanta, you will be able to obtain drugs through the Atlanta City Health Department. Send your report cards directly to the City Health Department. In the very near future you will be supplied with self-addressed, postage-free envelopes, if you do not already have them, in which to mail these reports to the City Health Department. *Please do not pay the delivery boy one cent for the delivery or contents of the package sent to you.*

Card No. 3, *Physician's Private Record of Reported Case*, is provided for your office record. On this card should be shown the patient's correct name and address, as well as the case number or symbol used in reporting the case on the initial *Venereal Disease Case Report Card*. This is necessary so that a patient previously reported to the Health Department by number may be identified, for follow-up purposes, if he becomes non-cooperative. There is space on this card for other essential information as to the patient's history. If you desire, you may remove this card from the book and use it as a treatment record card.

Card No. 2, *Discontinued Treatment Notice*, is to be used in reporting any case that

(Continued on page 421)





**WOMAN'S AUXILIARY : OFFICERS 1939-1940**

President—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

President-elect—Mrs. H. G. Banister, Ila.

First Vice-President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Second Vice-President—Mrs. C. H. Richardson, Milledgeville.

Third Vice-President—Mrs. Loren Gary, Jr., Shellman.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

Treasurer—Mrs. R. A. Woodbury, Jr., 1232 Belmont Drive, Augusta.

Historian—Mrs. J. L. Nevil, Metter.

Parliamentarian—Mrs. L. W. Williams, 135 East 45th Street, Savannah.

**DIRECTORY\***  
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*Members*

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Andrews, Mrs. Agnew, Murray Avenue, Tifton.

Auten, Mrs. W. J., Omega.

Evans, Mrs. E. L., 505 18th Street, Tifton.

Fleming, Mrs. C. A., 610 West 6th Street, Tifton.

Haralson, Mrs. Robert H., 621 Price Ave., Tifton.

Harrell, Mrs. D. B., 416 N. Central Ave., Tifton.

Hendricks, Mrs. W. H., 410 Love Ave., Tifton.

Houser, Mrs., North Ridge Ave., Tifton.

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Little, Mrs. Tom F., 403 North Ridge Ave., Tifton.

Peterson, Mrs. N., 260 Love Ave., Tifton.

Pickett, Mrs. F. B., Ty Ty.

Pittman, Mrs. Carl S., 215 W. 12th St., Tifton.

Price, Mrs. J. M., 1020 N. Central Ave., Tifton.

Shaw, Mrs. M. F., Omega.

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**TENTH DISTRICT**

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*Members*

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Johnson, Mrs. Joe E., Elberton.

Johnson, Mrs. W. A., Elberton.

Mattox, Mrs. B. B., Elberton.

Smith, Mrs. Amos, Elberton.

Smith, Mrs. F. A., Elberton.

Thompson, Mrs. D. N., Elberton.

\*The Tift and Elbert counties section of the Directory of the Woman's Auxiliary were unintentionally omitted from the Directory published in the September issue of *The Journal*.

**Mrs. White Awards**

The county Auxiliaries are working to win two new trophies during the coming year. These are to be awarded for the first time at the convention in Savannah next April by the Mrs. J. Bonar White Exhibit and Scrapbook Awards. The awards will be presented by Mrs. White, past president of the Auxiliary. Mrs. J. A. Redfearn, of Albany, is chairman of the committee which will select the winners.

The scrapbook will be part of the exhibit, but will be judged separately. The exhibit to be submitted by the Auxiliaries can be in any form in which members wish to express the work of their group, but each must be the work of the members and not anything commercial or anything compiled by anyone else. Suggested forms of the exhibit are programs, posters, outlines of the year's planned program or of activities.

Mrs. White is one of the most valued members of the Woman's Auxiliary to the Medical Association of Georgia and is also widely known in southern and national Auxiliary circles. She is a former president of the Woman's Auxiliary to the Fulton County Medical Society; the Woman's Auxiliary to the Medical Association of Georgia; the Woman's Auxiliary to the Southern Medical Association and is also a past first and third vice-president of the Woman's Auxiliary to the American Medical Association.

*Drive for Hygeia*

Mrs. C. H. Richardson, Milledgeville, issued the following plea for Hygeia subscriptions to members of the Woman's Auxiliary to the Medical Association of Georgia:

"As second vice-president and State Hygeia chairman of the Woman's Auxiliary to the State Medical Association, I am writing to urge each Auxiliary in the State to make a drive to put Hygeia in the schools, libraries, doctors' and dentists' offices, drug stores, beauty parlors, barber shops and homes where there are small children. So few know of the many fine articles giving information that will improve health conditions, thus making stronger citizens.

"One hundred thousand physicians, who are members of the American Medical Association, sponsor a health magazine in which the real truths of medicine are given. A handbook full of information will be sent to everyone interested in reading Hygeia. Be sure to contact your State chairman of Hygeia to get all literature with information about placing Hygeia before small children. A most interesting contest goes on from October 1 through January 1, 1940."

*Fourth District Organized*

The Woman's Auxiliary to the Fourth District Medical Society was organized at a

recent meeting held at the City-County Hospital in LaGrange. Mrs. Kenneth Grace, president of the Woman's Auxiliary to the Troup County Medical Society, was elected manager with Mrs. R. O. Lee, of LaGrange, vice-manager and Mrs. Edwin Arnold, of Hogansville, secretary-treasurer.

The organization meeting was directed by Mrs. Eustace A. Allen, of Atlanta, president of the Woman's Auxiliary, and Mrs. Harry Rogers, of Atlanta, state press and publicity chairman. Mrs. Allen addressed the group, outlined the aims and objectives of the county, district and state units. Mrs. Grace reported on the activities of the Troup Auxiliary since its organization.

Following the meeting, the group joined members of the Fourth District Medical Society for a beautifully appointed luncheon at the Highland Country Club.

Mrs. Grace, as president of the newly organized district group, will visit the various counties in the district in an effort to organize an Auxiliary in each county which does not have such an organization at present. Any woman who is the wife or widow of a member of the Fourth District Medical Society is eligible to join the Auxiliary.

#### *Tift County Organizes*

The Woman's Auxiliary to the Tift County Medical Society was organized at a recent meeting held in Tifton. Mrs. C. A. Fleming was elected president, the other officers being Mrs. C. S. Pittman, vice-president; Mrs. E. L. Evans, secretary, and Mrs. Agnew Andrews, publicity chairman.

Other members of the new Auxiliary are: Mrs. R. H. Haralson, Mrs. D. B. Harrell, Mrs. W. H. Hendricks, Mrs. R. E. Jones, Mrs. Houser, Mrs. Tom Little, Mrs. N. Peterson, Mrs. J. M. Price, Mrs. W. T. Smith, Mrs. M. L. Webb, Mrs. W. F. Zimmerman, all of Tifton; Mrs. W. J. Auten, Mrs. M. W. Anderson, Mrs. M. F. Shaw, all of Omega, and Mrs. F. B. Pickett, of Ty Ty.

Mrs. Pittman attended the second district meeting in Pelham as a delegate, with Mrs. Evans as alternate. Dr. and Mrs. Tom F. Little recently entertained the Tift county doctors and their wives at a barbecue at their home in Tifton.

#### *Third District*

The Woman's Auxiliary to the Third District Medical Society met recently at the high school auditorium in Vienna; Mrs. J. Cox Wall, of Eastman, district manager, presided. Mrs. Martin Malloy, of Vienna, welcomed the visitors and Mrs. Loren Gary, Jr., of Shellman, responded.

State officers present were Mrs. Eustace A. Allen, of Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia; Mrs. Warren A. Coleman, of Eastman, past president; Mrs. Loren Gary, Jr.,

of Shellman, third vice-president and scrapbook chairman, and Mrs. W. G. Elliott, of Cuthbert, district manager-elect. Mrs. Allen, Mrs. Coleman and Miss Emily Woodward, of Vienna, made interesting talks.

District chairmen were appointed as follows: Organization, Mrs. W. G. Elliott, of Cuthbert; Jane Todd Crawford Memorial, Mrs. Charles A. Greer, of Oglethorpe; Doctor's Day, Mrs. R. L. Cater, of Perry; Student Loan Fund and Health Films, Mrs. Loren Gary, Jr., of Shellman; Romance in Research in Medicine and Scrapbook, Mrs. Warren Coleman, of Eastman; Health and Public Relations, Mrs. Martin Malloy, of Vienna; and Hygeia, Mrs. H. M. Tolleson, of Eastman. After the meeting, the members of the Auxiliary and the district society were entertained at luncheon by the Vienna women.

#### *Randolph County*

The Woman's Auxiliary to the Randolph County Medical Society held its summer meeting, the first of the new year's activities, with Mrs. J. C. Patterson at her home in Cuthbert; Mrs. Loren Gary, Jr., president, presided. One new member, Mrs. C. J. Jordan, was welcomed.

The following committees were appointed: Public Relations, Mrs. Herbert Ingram, of Coleman, and Mrs. C. J. Jordan, of Cuthbert; Press and Publicity, Mrs. T. F. Harper, of Coleman; Health Film and Health Education, Mrs. W. G. Elliott, of Cuthbert; Jane Todd Crawford Memorial, Mrs. W. W. Crook, of Cuthbert; Research in Romance of Medicine and Doctor's Day, Mrs. J. C. Patterson, Mrs. W. G. Elliott and Mrs. W. W. Crook, of Cuthbert; Hygeia, Mrs. J. C. Patterson; Program, Mrs. T. F. Harper, Mrs. F. M. Martin, of Shellman, and Mrs. W. G. Elliott; Year Book, Mrs. F. M. Martin and Mrs. E. C. McCurdy, of Shellman, and Student Loan Fund, Mrs. Loren Gary, of Georgetown.

#### *Fulton County*

The Woman's Auxiliary to the Fulton County Medical Society held its September meeting, the first since June, at the Academy of Medicine on Prescott Street with over 80 members in attendance. Dr. Wadley Glenn spoke most interestingly on his recent trip to Marseille, France, via the Dixie Clipper, thus completing a trip around the world by commercial airliner. Dr. Edgar H. Greene, president of the Fulton County Medical Society, told of plans for the new building, which the society hopes to begin at an early date.

Mrs. Eustace A. Allen, state president, gave an entertaining and constructive report of the recent national convention in St. Louis, which she attended. Mrs. Forrest M. Barfield, president, presided and introduced her officers. Mrs. Walker Jernigan, secretary, and



Mrs. Stephen Brown, acting treasurer in the absence of Mrs. Ross Brown, gave reports. Later Mrs. Bernard L. Shackelford and her committee served a delicious luncheon.

New chairmen of committees for the Fulton County Auxiliary are: Mrs. Gaston Gay, membership; Mrs. W. W. Anderson, co-chairman; Mrs. W. C. Waters, Hospitals; Mrs. Leland Baggett, co-chairman; Mrs. M. K. Bailey, House and Grounds; Mrs. J. Gaston Gay, co-chairman; Mrs. Bernard L. Shackelford, Entertainment; Mrs. Cliff Sauls, Decorations; Mrs. J. R. Childs, co-chairman; Mrs. Charles E. Boynton, Courtesy; Mrs. T. J. Collier, co-chairman; Mrs. Edgar H. Greene, Program; Mrs. George Fuller, Better Films; Mrs. T. C. Davison, co-chairman.

Mrs. Edgar Shanks, Scrapbook; Mrs. Hal Davison, co-chairman; Mrs. Samuel Perry, Telephone; Mrs. F. S. Holden, co-chairman; Mrs. C. C. Aven, Public Relations; Mrs. C. E. Rushin, co-chairman; Mrs. Stephen T. Brown, Budget; Mrs. William A. Smith, co-chairman; Mrs. Harry Lange, Jane Todd Crawford Memorial; Mrs. Murdock Euen, Romance of Research in Medicine; Mrs. Calvin Stewart, Ways and Means; Mrs. A. B. Anderson, co-chairman; Mrs. Herbert Alden, Health Education; Mrs. W. M. Dunn, co-chairman; Mrs. Linton Smith, Cancer Drive; Mrs. George Noble, co-chairman.

Mrs. Mason Lowance, Remembrance; Mrs. Harry Rogers, Publicity; Mrs. A. C. Lynch, Red Cross; Mrs. R. E. Newberry, co-chairman; Mrs. George Williams, Legislation and Citizenship; Mrs. James N. Brawner, Revision of By-Laws; Mrs. C. W. Roberts, co-chairman; Mrs. Mark Dougherty, Hygeia; Mrs. E. Y. Walker, Jr., co-chairman; Mrs. W. E. Upchurch, Doctor's Day; Mrs. Marion Pruitt, co-chairman; Mrs. Eustace Allen, Hospitality; Mrs. George Klugh, Jr., co-chairman; Mrs. Joseph Yampolsky, Periodical Review; Mrs. Irvin Willingham, Year Book, and Mrs. Dewey Nabors, Exhibit.

### NECESSARY REPORTS FOR FREE ANTISYPHILITIC DRUGS

(Continued from page 417)

lapses treatment without your permission. On this card, it is necessary that the correct name and specific street address of the patient be given, along with the number or symbol used in making the initial case report of the patient. Please fill in, also, all other information requested on this blank. It is our hope that through the reporting of the delinquent cases, we may better be able to serve the physicians of the State by instituting follow-up procedure for the purpose of requiring such individuals with early syphilis to stay under treatment a sufficient period of time to render them permanently non-infectious. This requires at least 40 weeks of treatment,

given continuously, allowances being made for an occasional lapse of one week's treatment.

In the back of your book of physician's report blanks are *Reorder of Drugs* cards. These pink cards may be used in requesting an additional supply of drugs for a patient already reported on the initial case report card. In submitting the reorder cards, please give all information requested thereon, and use the same number, symbol, or name previously given on the initial case report.

If you do not have a book of *Physician's Report Blanks*, request same from City, County, or State Department of Public Health.

S. ROSS BROWN, M.D.

State Venereal Disease Control Officer

### NEWS ITEMS

THE MACON MEDICAL SOCIETY of Bibb County met on September 5. Dr. Samuel E. Patton, City-County Health Department, Macon, reported on *The Recent Findings in Rabies*.

THE REGULAR MONTHLY STAFF MEETING of Emory University Hospital, Emory University, was held on September 8.

THE ROBERT WINSHIP CLINIC holds tumor conferences at Emory University Hospital, Emory University, every Tuesday from 2:00 to 3:00 P. M. All members of the medical profession are cordially invited to attend.

DR. WILLIAM N. ETHERIDGE announces the opening of his offices at Suite 811 Medical Arts Building, 384 Peachtree Street, N. E., Atlanta. His practice will be limited to urology.

THE RANDOLPH COUNTY MEDICAL SOCIETY met at the Patterson Hospital, Cuthbert, September 7.

THE AMERICAN MEDICAL ASSOCIATION will meet in New York City in 1940; Cleveland in 1941; Atlantic City in 1942.

THE GEORGIA INDUSTRIAL SURGEONS ASSOCIATION met at the Cloister Hotel, Sea Island Beach, October 7. Dr. John W. Simmons, Brunswick, is secretary-treasurer; Dr. C. F. Holton, Savannah, president.

THE CARROLL COUNTY MEDICAL SOCIETY met at the Clifton Hotel, Carrollton, September 11. A fish dinner was served to the members and their wives.

DR. J. R. GARNER, Atlanta, chief surgeon of the A. & W. P. R. R., Western Railway of Alabama, and the Georgia Railroad, spoke on *Maintenance of Man Power Efficiency* at the annual meeting of the Alabama State Association of Railroad and Industrial Surgeons at Birmingham, Ala., September 12.

MEMBERS OF THE American Board of Obstetrics and Gynecology whose names appear in the list of diplomates and limit their practice to obstetrics and/or gynecology in Atlanta are as follows: Dr. R. A. Bartholomew, Dr. James N. Brawner, Jr., Dr. E. D. Colvin, Dr. Walter R. Holmes, Dr. J. R. McCord and

Dr. Charles B. Upshaw. Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pa., is secretary.

THE THOMAS COUNTY MEDICAL SOCIETY met at Archbold Memorial Hospital, Thomasville, September 20. Dr. Ralph Marsicano, Coolidge, read a paper on *Medicine*; Dr. Kirk Shepard, Moultrie, *Obstetrics*; Dr. Helen W. Bellhouse, Dr. Mary J. Erickson and Dr. Chas. H. Ferguson, all of Thomasville, reported on the summer *Post-Graduate Work*.

DR. AND MRS. AGNEW ANDREWS, Tifton, entertained the members of the Tift County Medical Society in their home, September 5.

THE PONCE DE LEON EYE, EAR, NOSE AND THROAT INFIRMARY announces the construction of a \$75,000 addition to be completed by Christmas. The new building will increase the number of hospital beds by 18. Each room will be equipped not only with telephone service but also with outlets for positive and negative pressure for intratracheal drainage of pulmonary suppuration and for the treatment of sinus infection. Each room, including the operating room, will be air conditioned, although if the patient objects to the cold he may have it turned off.

THE STAFF MEETING of the Georgia Baptist Hospital, Atlanta, was held on September 19. Dr. L. G. Parham was chairman of the Program Committee, and Dr. Hal M. Davison is secretary.

THE OCMULGEE MEDICAL SOCIETY, composed of the counties of Bleckley, Dodge and Pulaski, met on August 25. Dr. H. M. Tolleson, Eastman, reported a case, *The Treatment of Inverted Nipples by the Use of Suction*; Dr. Albert Bush, Hawkinsville, and Dr. H. T. Adkins, Bleckley, presented a patient with leprosy and showed the lesions; Dr. Chas. J. Woods, Macon, discussed the case.

THE SOUTHERN MEDICAL ASSOCIATION will hold its annual meeting in Memphis, Tenn., November 21-24, 1939.

DR. CLARENCE L. AYERS, Toccoa, has been appointed to the State Board of Health for a term of six years by Governor E. D. Rivers.

THE NINTH DISTRICT MEDICAL SOCIETY met at the First Methodist church, Cumming, September 20. The program consisted of Invocation by Rev. L. G. Cowart; Welcome Address, Mayor Roy Otwell; Response to Address of Welcome, Dr. W. B. Schaefer, Toccoa; Reading of Minutes, Dr. Pratt Cheek, Gainesville, secretary-treasurer. Scientific papers: *Hip Problems*, Dr. Lawson Thornton and Dr. Calvin Sandison, Atlanta; *The Diagnosis and Management of Coronary Artery Disease*, Dr. Carter Smith, Atlanta; *Some of the Diagnostic Points of Late Syphilis*, Dr. L. G. Neal, Cleveland. The members and guests were entertained at dinner by Dr. Marcus Mashburn, Cumming. Other Atlanta doctors who attended the meeting were: Doctors T. C. Davison, Edgar D. Shanks, D. Henry Poer, John W. Turner, Ross Brown, Ed H. Greene and Murdock Euen.

THE BEAVER VALLEY HOSPITAL, Martin, Ky., is interested in securing two assistant physicians with experience in practice at coal mining camps.

THE INTERNATIONAL MEDICAL ASSEMBLY, Interstate Postgraduate Medical Association of North America, will hold its twenty-fourth annual assembly at the Palmer House, Chicago, October 30, 31, November 1, 2, 3, 1939. Dr. James E. Paullin, Atlanta, will speak on *Syphilis of the Vascular System*, October 31.

DR. M. E. GROOVER, Quitman, Brooks county commissioner of health, is taking an eight months' postgraduate course in health work at Johns Hopkins University School of Medicine, Baltimore, Md. Dr. Groover was awarded one of the two scholarships given to Georgia physicians. Dr. J. R. McMichael, Quitman, will be in charge of the Brooks county health department during the absence of Dr. Groover.

THE CHAMBERS COUNTY MEDICAL SOCIETY of Alabama, met at Lanett Athletic Hall, West Point, Ga., September 12. Speakers on the program included Dr. Frank K. Bolland, Atlanta; Dr. John E. Walker, Columbus, and Dr. C. E. Irwin, Warm Springs.

DR. THOMAS PHINIZY, Augusta, spoke before a meeting of the Augusta Optimist Club on September 13, on the work of the Augusta-Richmond County Health Departments.

THE PIEDMONT POST-GRADUATE CLINICAL ASSEMBLY met at the Nurses' Home of the Anderson County Hospital, Anderson, S. C., September 19, 20, 21. Georgia physicians on the program included Dr. V. P. Sydenstricker, Augusta, who spoke on *Incomplete Deficiency Syndromes*; Dr. Edgar R. Pund, Augusta, *Ovarian Tumors*; Dr. Roy R. Kracke, Emory University, *The Effects of Analgesic Drugs on the Blood*; Dr. C. W. Roberts, Atlanta, *Cancer of the Breast*.

DR. AND MRS. T. H. BRABSON, Cornelia, entertained members of the Habersham County Medical Society and Auxiliary in their home on September 14.

DR. GUY G. LUNSFORD, Atlanta, director of County Health Work of the State Department of Public Health, spoke before a meeting of the Carrollton Lions Club on *Health Needed in Carroll County*.

THE MUSCOGEE COUNTY MEDICAL SOCIETY met at the Columbus City Hospital, September 19.

DR. M. E. WINCHESTER, Brunswick, Glynn County Commissioner of Health, announced that the work in syphilis control on Sapelo Island, which began in 1937, had been suspended because syphilis had been eradicated on the island. Mr. Richard J. Reynolds, owner of the island, supplied the funds.

THE DEKALB COUNTY CHAMBER OF AGRICULTURE AND COMMERCE sponsored lectures on *Health Education* under the supervision of Dr. J. R. Evans, Decatur, DeKalb County Commissioner of Health. Dr. S. Ross Brown, Atlanta, State Department of Public Health, spoke on *Control of Syphilis*, and showed motion pictures on September 24.

THE MACON MEDICAL SOCIETY of Bibb County met on October 3. Dr. O. R. Thompson reported on the recent meeting of the American Congress on Obstetrics and Gynecology. Additional discussion by Dr. Evelyn Swilling.



REGULAR MONTHLY MEETING of the staff of Emory University Hospital was held on October 2. Dr. Lon Grove discussed *Surgery of the Common Duct*, and gave reports of cases. Dr. W. W. Anderson, Dr. Roy R. Kracke and Dr. R. A. Bartholomew reported on *Pulmonary Embolism Following Abortion*. Dr. Dover. Dr. Myers and Dr. Gambrell gave reports of *Screw Worm Infestation of Nose and Paranasal Sinuses*.

DR. J. C. BURCH, Atlanta, has been appointed superintendent of Battle Hill Sanatorium to succeed Dr. J. H. Bradfield, deceased. The institution was established in 1910 to treat charity patients with tuberculosis and has a capacity of 226 beds.

THE UNIVERSITY OF GEORGIA SCHOOL OF MEDICINE, Augusta, inaugurated this year a series of orientation lectures for the entering freshman. The lectures given over a three-day period were as follows: *The Importance of the Humanities* by Dr. G. Lombard Kelly, dean; *Philosophy in Everyday Life*, Dr. Eugene E. Murphey, professor of clinical medicine; *Heredity and Medicine*, Dr. Joseph Krafka, Jr., professor of micro-anatomy; *Ethics in Daily Life*, Dr. V. P. Sydenstricker, professor of medicine; *Environment and Adaptation*, Dr. Hervey M. Cleckley, professor of psychiatry; and *Science and Knowledge*, Dr. Fred A. Mettler, professor of anatomy.

THE SHEFFIELD CLINIC of the Georgia Baptist Hospital, Atlanta, was dedicated on October 6. Speakers on the program were: Governor E. D. Rivers, Mayor Wm. B. Hartsfield, Rev. E. M. Altman, Dr. Edgar D. Shanks, Dr. Ed H. Greene, Dr. George H. Semken, New York City, Mrs. H. B. Ritchie, and Dr. Ellis A. Fuller. Clinic officers are: Dr. J. L. Campbell, Dr. C. W. Roberts, Dr. O. D. Hall, Dr. George F. Klugh, Dr. Hugh Cochran, Dr. William F. Lake, Dr. A. J. Ayers, Dr. W. A. Kelley and Dr. Chas. G. Boland.

THE FIFTH DISTRICT MEDICAL SOCIETY met at the Academy of Medicine, Atlanta, October 5. *Address of Welcome* by Dr. Edgar H. Greene, Atlanta, president of the Fulton County Medical Society; *Georgia's Health Program*, Dr. William H. Myers, Savannah, president of the Medical Association of Georgia; *The Etiologic, Diagnostic and Medico-legal Problems of Occupational Diseases*, Dr. C. O. Sappington, Chicago; *Blood Diseases in Which Splenectomy Is Indicated*, Dr. Roy R. Kracke, Emory University; *The Practitioner and the Cancer Problem*, Dr. George H. Semken, New York City; *Diagnosis and Treatment of Common Allergic Manifestations Encountered by the General Practitioner*, Dr. Ray M. Balyeat, Oklahoma City, Okla.

THE STAFF MEETING of the Grady Hospital, Atlanta, was held on October 10. Dr. J. A. Green presented a case, *Liver Tumor*, discussed by Dr. Wadley Glenn; *Pathologic Findings*, by Dr. Warren Matthews. *Case of Hodgkin's Disease* presented by Dr. J. B. Peschau, Jr., discussed by Dr. C. H. Paine; *Autopsy Findings* by Dr. Warren Matthews.

THE EIGHTH DISTRICT MEDICAL SOCIETY met at the Daniel Ashley Hotel, Valdosta, October 13. Titles of papers on the scientific program were: *Quinine*

*Amblyopia* by Dr. J. T. King, Thomasville; *Factors Lessening Mortality in Abdominal Surgery*, Dr. C. A. Witmer, Waycross; *Kidney Salvage*, Dr. Earl Floyd and Dr. Jas. L. Pittman, Atlanta; *Brill's Fever*, Dr. Sage Harper, Ambrose; *Complications and Treatment of Hemorrhoids*, Dr. F. H. Thomas, Valdosta. Dinner was served at the Daniel Ashley Hotel.

THE SECOND DISTRICT MEDICAL SOCIETY met at Carnegie Library, Pelham, October 13. Physicians on the scientific program included: Dr. C. K. Wall, Thomasville, read a paper on *Twelve Years' Appendicitis Mortality in the Archbold Memorial Hospital, 1926-1927*; Dr. Floyd W. McRae, Atlanta, *Surgical Observations*; Dr. Helen W. Bellhouse, Thomasville, *Undulant Fever in Children: Its Diagnosis—Report of Two Cases*; Dr. Ferguson Davis, Thomasville, *The Veterinarian's Aspect of This Condition as it Pertains to the Health of Man*; Dr. E. R. Watson, Atlanta, assistant director, division of maternal and child health, State Board of Health, *The Diagnosis and Treatment of Congenital Syphilis*, discussed by Dr. Helen W. Bellhouse, Thomasville. Barbecue was served at Mrs. J. L. Hand's lake.

THE SEVENTH DISTRICT MEDICAL SOCIETY and the Southeastern Surgical Congress held a joint meeting at the Municipal Club House, Rome, October 4. Titles of papers on the program included: *Fracture of Acetabulum with Puncture of Bladder*, Dr. H. W. Jernigan, Atlanta, and Dr. B. B. Anderson, Americus; *Endarteritis Obliterans, Treatment with Pavaex*, Dr. Henry Poer and Dr. Exum Walker, Atlanta; *Ruptured Gangrenous Appendix and the Use of the Pezzar Catheter*, Dr. John Mooney, Statesboro, and Dr. Kenneth S. Hunt, Griffin; *Acute Pancreatitis*, Dr. Herbert Acuff, Knoxville, Tenn., and Dr. Grady Coker, Canton; *The Peptic Ulcer Problem*, Dr. R. L. Sanders, Memphis, Tenn.; addresses by Dr. Wm. H. Myers, Savannah, and Dr. J. C. Patterson, Cuthbert, president and president-elect, respectively; *Cholecystectomy with Drainage of Common Duct*, Dr. Ralph N. Johnston, Rome, and Dr. H. L. Erwin, Dalton; *Carcinoma of the Breast*, Dr. Enoch Callaway, LaGrange, and Dr. Lester Harbin, Rome; *Hydronephrosis Due to Stones*, Dr. Wallace L. Bazemore, Macon, and Dr. W. E. Upchurch, Atlanta; *Ovarian Tumors*, Dr. Bruce Schaefer, Toccoa, and Dr. Wadley Glenn, Atlanta; *Tracheobronchitis*, Dr. Ed. Wright, Atlanta, and Dr. Ralph McCord, Rome. The McCall Hospital entertained with an open house.

DR. J. B. WARNELL, mayor of Cairo, has been appointed to the State Board of Medical Examiners by Governor Rivers.

DR. J. R. GARNER, Atlanta, chief surgeon for the A. & W. P. R. R. Co., Western Railway of Alabama and the Georgia Railroad, announces the following appointments: Dr. W. G. Hamm, Atlanta, consulting plastic surgeon; Dr. Wadley R. Glenn, Atlanta, local surgeon, and Dr. H. E. Griggs, Conyers, local surgeon.

THE GEORGIA UROLOGICAL ASSOCIATION met at Macon on October 5. Officers elected were: Dr. M. K. Bailey, Atlanta, president; Dr. J. L. Garrard, Rome,



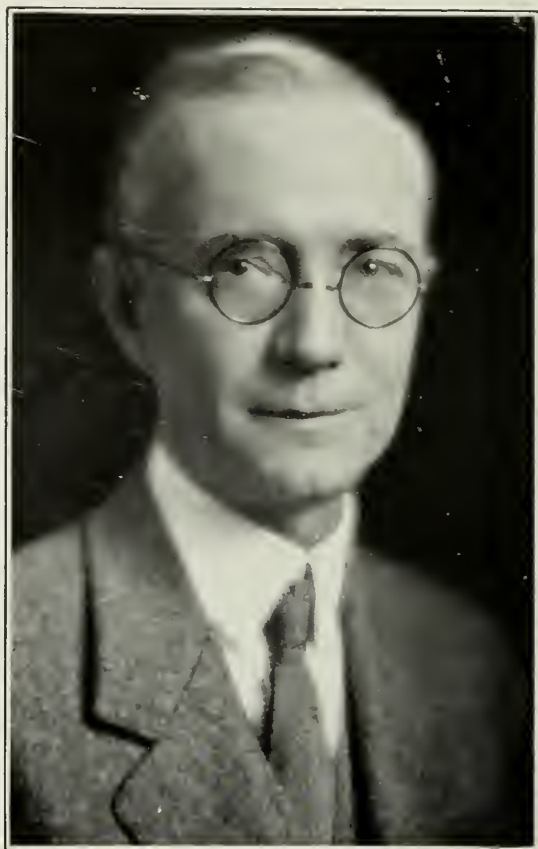
president-elect: Dr. W. E. Upchurch, Atlanta, secretary-treasurer. Dr. Montague L. Boyd, Atlanta, was chairman of the Program Committee, and Dr. Wallace L. Bazemore, Macon, chairman of the Entertainment Committee.

DR. B. H. MINCHEW and DR. B. E. COLLINS, Wavcross, entertained the members of the Ware County Medical Society at a dinner served at Hotel Ware, October 4.

#### OBITUARY

*Dr. Arthur Godfrey Fort*, Atlanta: member; Atlanta College of Physicians and Surgeons, Atlanta, 1904; aged 61; died suddenly in an Atlanta hospital on September 15, 1939. He was a native of Lumpkin. Dr. Fort received his collegiate education at Emory College, Oxford. After he graduated in medicine, he practiced for several years at Lumpkin and Tifton, then he was associated in the work of the Rockefeller Foundation in Georgia under the supervision of the United States Public Health Service as an epidemiologist. For his distinguished work in this field, he was granted an honorary degree by the University of Georgia School of Medicine. Dr. Fort at one time served as Major in the Medical Corps of the United States Army. For a number of years he was associated in practice with Dr. Phinizy Calhoun, then practiced for two years in Miami and returned again to private practice in Atlanta more than twenty years ago. In addition to being consulting oculist at all the Atlanta hospitals, he was chief ophthalmologist at Grady Hospital, oculist for the Seaboard Air Line Railway and a member of the faculty of Emory University School of Medicine. Dr. Fort was a member of the Fulton County Medical Society, Association of the Seaboard Air Line Surgeons, Georgia Industrial Surgeons Association, Pan-American Medical Congress, American Academy of Ophthalmology and Otolaryngology, fellow of the American College of Surgeons, American Medical Association, past president of the Medical Association of Georgia, 1931-32, and member of St. Mark Methodist church. Dr. Fort manifested an adorable interest in his patients, and was loyal to his profession and church. He could always be depended upon as an aggressive leader for the welfare of our State and nation. Dr. Fort possessed a wonderful personality and a keen insight into the many problems of life. He had hundreds of friends who will cherish his memory and know that his acquaintance was an inspiration to higher ideals. Dr. Lester Rumble officiated at the funeral services conducted at Spring Hill Chapel. Burial was in Lumpkin, Georgia, cemetery. Pallbearers included Dr. Lynn Fort, Jr., Dr. Phinizy Calhoun, Dr. Lester A. Fort and Dr. Hal M. Davison. An honorary escort was composed of members of the Fulton County Medical Society.

*Dr. Newton Jasper Coker*, Canton: member; University of Georgia School of Medicine, Augusta, 1893; aged 71; died on September 11, 1939 at his home after a long illness. He was a native of Cherokee county and one of the most prominent physicians of that section. He attended the literary schools at Canton, Dahlonega and Young Harris. Dr. Coker took



A. G. FORT, M. D., Atlanta  
President, 1931-32

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post-graduate work in New York City after he graduated in medicine at the University of Georgia School of Medicine. Dr. Coker's energy and resourceful brain never lay dormant. His activities were directed for the improvement of his home town, county and State. His interest was not only manifested in the practice of medicine, but in cattle raising, farming, education and religion. His life was spent in attaining high ideals. The people who knew him best, loved him most. He began the practice of medicine at Chapel Hill, N. C. Four years later he returned to his home county, Cherokee. The remainder of his professional work was carried out in Cherokee and adjoining counties with the exception of a short time spent in Bartow and Forsyth counties, and in the medical corps of the United States Army during the World War. Dr. Coker with his son, Dr. Grady Coker, established Coker's Hospital at Canton in 1923. A new hospital with modern equipment was built in 1936. He served for a number of years on the Cherokee County Board of Education and for several years as chairman. It was stated that his influence had been a decided factor in the upbuilding of the Cherokee county schools. The Etowah Bank was organized with Dr. Coker on the board of directors and at one time he served as chairman of the board. He was a member of the Cherokee-Pickens County Medical Society, Odd Fellows, Woodmen of the World, the Brady Post of the American Legion, Masons, Shrine,

member of the First Baptist church and chairman of the board of deacons. Surviving him are two sons, Dr. Grady N. Coker, Canton, past president of the Medical Association of Georgia, and Shaul L. Coker, Dahlonga; three daughters, Mrs. James E. Hays, New York City; Mrs. Herman G. Phillips, Winnsboro, N. C., and Miss Betty Coker, Canton. Rev. O. M. Seigler, pastor of the First Baptist church, Canton, and Rev. Peter Manning of the Inman Park Methodist church, Atlanta, officiated at the funeral services conducted from the First Baptist church. Burial was in the Canton cemetery. Deacons of the First Baptist church formed an honorary escort.

*Dr. James Wilmarth Clark*, Columbus: North Carolina Medical College, Charlotte, N. C., 1906; aged 57; died on August 25, 1939 at his residence. He was a native of Charlotte, N. C. Dr. Clark began practice in Donalsonville and a few years later in 1914 moved to Columbus, where he practiced until ill health forced him to retire a few years ago. For many years his practice had been limited to urology. Dr. Clark had a wonderful personality and with his kindhearted disposition endeared himself to hundreds of patients and friends. Surviving him are his widow, one daughter, Mrs. Michael Chalverus; one son, James Clark. Funeral services were conducted at the chapel of Britton and Dibbs. Rev. Albert S. Trulock officiated. Pallbearers included Dr. J. H. McDuffie and Dr. W. Edward Storey.

*Dr. Joseph H. Bradfield*, Atlanta: member; Emory University School of Medicine, Emory University, 1893; aged 72; died on September 6, 1939. He was a native of Troup county. For twenty-two years he was engaged in private practice in Atlanta, and then at the request of Hon. James G. Woodward, mayor of Atlanta, assumed the management of Battle Hill Sanatorium. He had served as superintendent of the Sanatorium for more than twenty-four years before his death. Dr. Bradfield acquired and held the respect and admiration of all political factions in Atlanta. Battle Hill Sanatorium was a city institution, and he served as superintendent under a number of administrations. No one questioned his motives or ability to manage Battle Hill Sanatorium. Dr. Bradfield made the institution an outstanding tuberculosis hospital and was devoted to his patients. He was a member of the Fulton County Medical Society, American Medical Association, Elks, F. & A. M., and St. Mark Methodist church. Surviving him are two daughters, Miss Mildred Bradfield and Mrs. M. W. Griffin. Funeral services were conducted at the chapel of Harry G. Poole. Dr. Lester Rumble officiated. Burial was in West View cemetery.

*Dr. William Bryan Summerall*, Atlanta: Tulane University of Louisiana School of Medicine, New Orleans, La., 1896; aged 74; died in a private hospital in Atlanta on September 5, 1939. He was a native of Florida. Dr. Summerall served in the medical corps of the United States Army during the Spanish-American War. At the time of his death he had retired from active participation in medical affairs. Surviving him are one daughter, Mrs. George A. Haynes, Charleston, S. C.; one son, Leonidas Summerall, Washington, D.

C. Funeral arrangements were in charge of Brandon-Bond-Condon, Atlanta.

*Dr. Roy S. Pounds*, Redan: Georgia College of Eclectic Medicine and Surgery, Atlanta, 1912; aged 50; died suddenly on September 18, 1939. He was a native of Gwinnett county. Dr. Pounds was favorably known in that section and was a successful general practitioner. He was an affable gentleman and had many friends. Surviving him are three daughters, Misses Martha and Marianna Pounds, and Mrs. Corley Johnson; one son, James Minor Pounds. Rev. James L. King officiated at the funeral services conducted at the Redan Baptist church. Burial was in the Redan cemetery.

*Dr. Parish Stewart Smith*, Conyers: member; Atlanta College of Physicians and Surgeons, Atlanta, 1904; aged 62; died at a private hospital in Atlanta on September 7, 1939. He began the practice of medicine at the United States Marine Hospital, Savannah, in 1904, then in 1906 removed to his native county where his father, mother and grandfather had resided for many years; spent the remainder of his life in Rockdale county where he served as a useful practitioner of the healing art. In addition to his work as a physician, he served as legislator for Rockdale county and as State senator for his district. He was local surgeon for the Georgia Railroad for a number of years. Surviving him is one sister, Miss Kate Smith. Rev. A. D. Howard and Rev. J. J. M. Mize officiated at the funeral services conducted from the home of his sister. Burial was in East View cemetery.

*Dr. Newton J. Boswell*, Decatur: Georgia College of Eclectic Medicine and Surgery, Atlanta, 1893; aged 66; died on September 8 at his home after a long illness. He was widely known throughout the State. Dr. Boswell practiced at Decatur, Dahlonga and Tallulah Falls. He was a member of the Methodist church. Surviving him are his widow, one brother, F. E. Boswell, Greensboro; three sisters, Mrs. E. L. Lewis, Greensboro; Mrs. L. H. Crowe, Athens, and Mrs. A. B. Reeves, Littleboro, Ky. Rev. J. W. O. McKibben officiated at the funeral services. Burial was in Greensboro cemetery.

*Dr. James J. Kennedy*, Collins: Kentucky School of Medicine, Louisville, Ky., 1886; aged 78; died on September 11, 1939 at his home. He was favorably known in Tattnall and adjoining counties. Dr. Kennedy received his collegiate education at the University of Georgia and was the first person in Tattnall county to receive a diploma from the University. He graduated there in 1884. The people recognized his ability, yet he was unassuming and never pretentious. He is survived by his widow, two sons and two daughters.

*Dr. W. K. Burnett*, Winston: Chattanooga Medical College, Chattanooga, Tenn., 1894; aged about 70; died at his home on September 20, 1939 from heart disease. He was a native of Douglas county. Dr. Burnett had practiced medicine in his home community for more than forty years and was held in high esteem by hundreds of acquaintances. Surviving him are his widow and one daughter, Miss Emma Burnett, a

teacher in the Atlanta public schools. Funeral services were conducted at Chapel Hill church. Burial was in the churchyard.

### BOOK REVIEWS

*Cancer Handbook of the Tumor Clinic*, Stanford University School of Medicine. Edited by Erick Liljencrantz, M.D., Chief of the Tumor Clinic, Stanford University School of Medicine, Consultant in Neoplastic Diseases, U. S. Naval Hospital, Mare Island, and U. S. Marine Hospital, San Francisco. Stanford University Press, Stanford University, Calif. London: Humphrey Milford, Oxford University Press. Price, \$3.00.

In this well illustrated volume of 114 pages, 14 pages are devoted to the all important "cancer problem," which is interesting the entire world today. The remainder of the book consists of a short chapter in which the principles of radiation therapy are discussed followed by a clinical consideration of cancer in different organs and parts of the body. The study is brief, but comprehensive.

There are 50 illustrations consisting of graphic charts, drawings, and actual photographs. All of these are well explained in the legends which accompany them.

The book is printed on good paper with a clear and distinct text. The subject matter is well arranged, so that a desired topic may be found at a glance. The arrangement of the bibliography gives maximum ease in finding any subject.—J. L. C.

*Cancer—Its Diagnosis and Treatment*, by Max Cutler, M.D., Associate in Surgery, Northwestern University Medical School; Chairman, Scientific Committee, Chicago Tumor Institute; Consultant, Tumor Clinic and Director, Cancer Research, United States Veterans Administration, Hines, Illinois; and Franz Buschke, M.D., Assistant Roentgenologist, Chicago Tumor Institute; Late Assistant, Roentgen Institute, University of Zurich. Assisted by Simeon T. Cantril, M.D., Director, Tumor Institute, Swedish Hospital, Seattle; Late Assistant, Chicago Tumor Institute. 757 pages with 346 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$10.00 net.

In this volume the authors have covered the subject matter thoroughly. The first 34 pages are devoted to "Radiation Therapy." A comparison of the effect of x-ray and radium is discussed at some length, as is also the effect of irradiation on normal and tumor cells. The radiosensitivity of tumor cells receives due consideration. Indeed, every phase of this rapidly developing weapon against cancer is thoroughly discussed.

Biopsy receives the consideration it justly deserves. The different methods now in use are presented and discussed. The authors' opinion of the value of the various methods is given without reservation.

A special chapter is devoted to the principles involved in the spread of cancer. There is also thorough

discussion of the metastatic and infiltration peculiarities of cancer of different structures.

Cancer of the skin, so prevalent among individuals exposed to climatic changes, is given more than ordinary space. In fact, the book as a whole deserves careful study, for in it are statistical, pathological, clinical and therapeutic information well arranged and convincingly presented. The illustrations are well selected and the legends clearly explanatory.

The bibliography is up-to-date. Its set-up gives easy reference to any phase of cancer without the necessity of searching through the whole book.—J.L.C.

*A Symposium on Cancer*. The University of Wisconsin Press, Madison, Wisconsin. 1938. This interesting volume publishes in book form papers presented at an Institute on Cancer conducted by the University of Wisconsin Medical School at Madison, Wisconsin, September 7-9, 1936. The Institute was fortunate in the assembly of the group who contributed to the symposium, as all the speakers were of national or international reputation.

A variety of significant and interesting topics were included in the symposium, which had the following scope: genetics of malignant neoplasms (three papers); hormones in relation to carcinogenesis; experimental carcinogenesis by pure chemical compounds; the role of chronic irritation in cancer production; two papers on radiation and its effects on neoplasms; a paper on cancer as a public health problem; the biology of the cancer cell (two papers); the relation of malignant viruses to malignant neoplasms; the effect of bacterial products on tumors; three papers on the clinical aspects of cancer, dealing respectively with biopsies, the better recognition and treatment of cervical cancer, and the rule of radiation in the treatment of mammary carcinoma. Finally, a paper on the influence of extrinsic factors on the development of induced forms in animals.

It is obviously impossible within the scope of a review to deal with all the papers presented. All are meritorious and worthy of study. However, the attention of those interested in cancer should be especially directed to some of the papers dealing with certain recent work in cancer research, such as the action of carcinogenic substances in the production of tumors, the effect of bacterial products upon tumors or, from the clinical side, the reactions of tumor cells to protracted radiation.

In respect to the carcinogenic action of pure chemical compounds, Andervont of the U. S. Public Health Service presented an excellent review of this field of research. It was, indeed, an epochal observation when Professor Kenway and his colleagues at the Research Institute of the Royal Cancer Hospital in London demonstrated that a relatively simple cystic compound, such as 1, 2, 5, 6 dibenzanthracene of low chemical activity was able, when placed in contact with tissue cells, of effecting their transformation into malignant cells. Dr. Andervont places before the reader an excellent review of the operation up to the time the paper was published. Again, his review of recent work on



the action of bacterial products on animal tissues, which includes a number of his own observations, characterizes this field as one which may hold possibilities for therapeutic advances in the treatment of malignant neoplasms.

J. L. CAMPBELL, M.D.

## COMMUNICATION

To the Editor:

In addition to the articles enumerated in our letter of August 11 the following have been accepted:

Abbott Laboratories

Tablets Cevitamic Acid-Abbott, 0.05 Gm.  
Parke, Davis & Co.

Ampoules Adrenalin in Oil, 1 cc.  
Riedel-de Haen, Inc.

Ampoules Solution Decholin-Sodium, 20 per cent,  
3 cc.

Sharp & Dohme

Immune Globulin (Human)  
Smith-Dorsey Co.

Tablets Nicotinic Acid, 50 mg.

Tablets Ascorbic Acid, 25 mg.

Frederick Stearns & Co.

Stearns Viosterol (A.R.P.I. Process) in Oil

Stearns Cod Liver Oil Concentrate in Vegetable Oil;

Stearns Cod Liver Oil Concentrate Capsules, 3 minims

Stearns Cod Liver Oil Vitamin Concentrate Tablets

Stearns Halibut Liver Oil Plain; Stearns Halibut Liver Oil Plain, Capsules 3 minims

Stearns Halibut Liver Oil with Viosterol (A.R.P.I. Process); Stearns Halibut Liver Oil with Viosterol (A.R.P.I. Process) (with other fish liver oils) Capsules.

The following product has been accepted for inclusion in the List of Articles and Brands Accepted by the Council But Not Described in N.N.R. (New and Nonofficial Remedies, 1939, p. 528):

The Emergency Antidote Kit Company

Emergency Antidote Kit (Jacobson).

PAUL NICHOLAS LEECH, *Secretary*  
*Council on Pharmacy and Chemistry,*  
*American Medical Association.*

Chicago, Ill.  
Sept. 15, 1939.

## TRUTH ABOUT MEDICINES

### NEW AND NONOFFICIAL REMEDIES

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Refined and Concentrated Antipneumococcic Serum, Type I-Lederle (New and Nonofficial Remedies, 1939, p. 406).—This product is also marketed in packages of one vial containing 20,000 units and one vial containing 50,000 units. Lederle Laboratories, Inc., Pearl River, N. Y.

Ampoules Caffeine with Sodium Benzoate, 2 cc.—Each 2 cc. contains in sterile aqueous solution caffeine with sodium benzoate U.S.P. (New and Nonofficial Remedies, 1939, p. 154) 0.5 Gm. (7½ grains). Wm. S. Merrell Company, Cincinnati. (J.A.M.A., Aug. 12, 1939, p. 595.)

## TRUTH ABOUT MEDICINES

### NEW AND NONOFFICIAL REMEDIES

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Undulant Fever Vaccine (Abortus and Suis).—A heat killed suspension of *Brucella abortus* (bovine) 2,500 million per cubic centimeter and *Brucella suis* (porcine) 2,500 million per cubic centimeter. Merthiolate 1:10,000 is used as a preservative. The product is marketed in packages of one 5 cc. vial, in packages of one 15 cc. vial, and in packages of one 30 cc. vial. For a statement of actions and uses see New and Nonofficial Remedies, 1939, p. 438. The National Drug Co., Philadelphia.

Estrone-Lilly.—A brand of estrone (theelin)-N.N.R. (New and Nonofficial Remedies, 1939, p. 345). It is marketed in the following forms: Ampoules Estrone, 0.1 mg. in oil, 1 cc.; Ampoules Estrone, 0.2 mg. in oil, 1 cc.; Ampoules Estrone, 0.5 mg. in oil, 1 cc.; Ampoules Estrone, 1.0 mg. in oil, 1 cc.; and Vaginal Suppositories Estrone, 0.2 mg. Eli Lilly & Co., Indianapolis, Ind.

Estriol-Lilly.—A brand of estriol (theelol)-N.N.R. (New and Nonofficial Remedies, 1939, p. 347). It is marketed in the following dosage forms: Pulvules Estriol, 0.06 mg.; Pulvules Estriol, 0.12 mg.; Pulvules Estriol, 0.24 mg. Eli Lilly and Co., Indianapolis, Ind.

Riboflavin-Merck.—A brand of riboflavin-N.N.R. (New and Nonofficial Remedies, 1939, p. 479). It is marketed in the following dosage forms: Ampule Riboflavin-Merck, 10 mg.; Ampule Riboflavin-Merck, 100 mg.; and Riboflavin-Merck, 1 Gm. bottle. Merck & Co., Inc., Rahway, N. J. (J.A.M.A., July 29, 1939, p. 415.)

## THE RADIOLOGICAL SOCIETY OF NORTH AMERICA WILL MEET IN ATLANTA

The Twenty-fifth Annual Meeting of the Radiological Society of North America will be held at the Atlanta Biltmore Hotel, Atlanta, December 10-15, 1939.

This is the first time a national society of this size has met in the southeast. All members of the Medical Association of Georgia are invited to attend the meetings as guests. There will be no registration fee.

The scientific program will consist of papers on diagnosis and roentgenology, roentgen and radium therapy. Everyone interested in these subjects may find the meetings intensely instructive.

The latest improved therapeutic devices will be shown in the commercial exhibit.

Additional information in reference to the scientific program will be published in the November issue of this *Journal*.

## SQUIBB'S NEW LABORATORY

Establishment of a new laboratory for the study of filterable virus diseases, in the treatment and prevention of which science is believed to be at the threshold of an important advance, is announced by the Squibb Biological Laboratories.

Dr. Raymond C. Parker, biologist of the Rockefeller Institute for Medical Research, and for many years an associate of Dr. Alexis Carrel, has been appointed to head the laboratory, which will operate as a unit of the Biological Division of E. R. Squibb and Sons at New Brunswick, N. J. The new building is a continuation of a program of expansion which began in the Fall of 1938 with the dedication to pure science of the \$750,000 laboratory of the Squibb Institute for Medical Research.

"Enlargement of the Company's biological facilities was undertaken because rapid development in the knowledge of filterable viruses has made it probable that our ability to prevent and control infections from these sources will have a rapid expansion in the immediate future, Dr. John F. Anderson, director of the Biological Laboratories, explained.

Among the common diseases caused by filterable viruses, Dr. Anderson pointed out, are smallpox, rabies, equine encephalitis, measles, chicken pox, poliomyelitis, and the common cold. No specific product for the prevention of four of these diseases—the common cold, poliomyelitis, chicken-pox, and measles—is now available.

More than 500 scientists from ten nations witnessed the first demonstration of the new virus laboratory during a tour of the Squibb Institute and the Biological Laboratories on September 6 and 7. The group, composed of delegates to the Third International Congress for Microbiology, which met in New York City, September 2 to 9, also inspected the Rockefeller Institute for Medical Research at Princeton on Wednesday, September 6.

The program at New Brunswick was divided into two sections, exhibitions and charts illustrating new developments in the Squibb Institute, and a display of biological products developed by large scale methods in the Biological Laboratories. German, Spanish, French, and Italian interpreters will be provided for those who do not speak English. Stables in which 200 horses and 1,500 rabbits are maintained for the production of antitoxic and antibacterial sera were shown to the foreign microbiologists.

The new virus laboratory is housed in a specially constructed building, and is equipped for work with chick embryos and tissue culture, two of the techniques for work in this field. The actual working quarters consist of a large general laboratory equipped with every facility for chemical and histologic work, a general preparation room for washing, drying, packing, and storing the various materials that are used, two special culture and operating rooms provided with filtered ventilation, a spacious incubator room, an animal preparation room, a bleeding room, and ample animal quarters.

The arrangement of the rooms is such that the air of the culture suite proper is protected at all times from the air of the general laboratory and office quarters on the one side, and of the animal room on the other.

It is also possible for visitors to observe every step of the work in progress without entering any of the various rooms of the culture suite.

The program of the visiting scientists at New Brunswick included a demonstration of the Institute's work on the effects of vitamin K and some of the new simple synthetic products which have an effect similar to that of the natural vitamin. A test, using baby chicks and allowing vitamin K to be assayed in six hours, was carried out. Charts showed the relationship of vitamin K deficiency to blood clotting, a comparison of methods of assay of vitamin K, and the isolation of the natural vitamin from alfalfa. Natural and synthetic products with vitamin K activity were displayed.

Dr. Parker was born in Newport, Nova Scotia, on October 18, 1903. He received the degree of Bachelor of Arts from Acadia University in 1924, and the degree of Doctor of Philosophy in 1927 from Yale University, where he was Sterling Fellow, and assistant in zoology. From 1927 to 1929 he studied in Germany as National Research Council Fellow in biology. He became assistant in the division of experimental surgery at the Rockefeller Institute in 1930, and associate in 1935. His researches have dealt with selection in protozoa and the biology of tissue cells in pure cultures. Dr. Parker is the author of the leading text on "Methods of Tissue Culture."

SOUTHERN MEDICAL ASSOCIATION  
AND TRANSPORTATION TO MEMPHIS

For the thirty-third annual meeting of the Southern Medical Association to be held in Memphis, Tenn., Nov. 21-24, special air-conditioned sleeping cars will be operated from Atlanta over the Seaboard Railway.

Special round trip railroad fare of \$18.90 will be available from Atlanta to Memphis for this occasion. The lower berth is \$3.15 and Drawing Room \$11.55 in each direction. The Seaboard route to Memphis takes us through Birmingham, home of the Secretary of the Southern Medical Association, Mr. C. P. Loran. Stopovers will be permitted at Birmingham on either the going or return trip.

It is anticipated there will be a good attendance from Georgia and those desiring Pullman reservations in the special sleepers should communicate with Mr. H. E. Pleasants, Asst. General Passenger Agent, Seaboard Railway, 1002 The 22 Marietta St. Bldg., Walnut 2179, Atlanta, Ga. Tickets and reservations will be delivered to the office of members located in Atlanta. The Seaboard Railway's service is outlined in their ad appearing in this issue of the *Journal*.

## STATE BOARD OF MEDICAL EXAMINERS

Dr. R. F. Wheat, Bainbridge.

Dr. Claude Griffin, Atlanta.

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## CHRONIC APPENDICITIS\*

### *Difficulties and Mistakes in the Diagnosis*

A. J. MOONEY, SR., M.D.  
Statesboro

If I, in advance, bespeak your forbearance in presenting a paper on such an old subject, I do so because it is well occasionally to strengthen our stakes by reviewing the old landmarks that have been tested by time and experience and to lengthen our scientific cords by evaluating the new.

For many years some very eminent and able surgeons and clinicians have held the opinion that, excluding the cases in which there is a history of previous attacks of acute appendicitis characterized by pains, nausea, elevated temperature, and leukocytosis, there is no such pathologic entity as chronic appendicitis.

As will be observed by the title of this paper, it is not concerned with this question. But from a practical standpoint it would seem that in such a structure as the vermiform appendix which most authorities consider vestigial; whose position is nearly always pendulous; the lumen of which is protected only by the ileocecal valve which is often incompetent; whose only power of emptying itself is peristalsis (vermicular motion); located (if rotation is complete) in an area in which Jackson's membrane, Lane's kinks, and such fetal structures are most common; and which certainly has no immunity against selective metastatic bacterial infections as proved by Rosenow.

Under such favorable conditions to say that chronic inflammatory changes in the appendix do not take place, it is well to "take heed lest one stumble and fall."

Larimore<sup>1</sup> quotes several investigators who estimated that 40 per cent of the operations for chronic appendicitis failed to give relief. Burke<sup>3</sup> quotes Deaver and Rodwin's statistics on 500 cases of chronic appendicitis which were operated upon, 83.1 per cent being entirely relieved; 9.7 per cent were partially relieved, and 7.07 per cent were unrelieved.

At the present time, in my opinion, the figures would be 80 per cent relieved by operation, and 20 per cent unrelieved. It is the 20 per cent unrelieved who come with multiple scars on the abdomen, the first of which is nearly always a small McBurney or right rectus incision, each scar, I am sure, representing a careful, conscientious investigation by the surgeon before operating; and the cases in which a diagnosis has not been made that form the basis of this paper.

The patient seeks relief from abdominal pains; digestive disturbances, or some of the nervous phenomena which manifest themselves in various ways. Probably one of the most common shortcomings in the diagnosis is failure to get a carefully taken history even into very early childhood, such as attacks of acidosis, colic, etc.

For analysis, my subject is classified as follows:

1. Gastro-intestinal
2. Urinary tract
3. Pelvis
4. Circulatory
5. Nervous system

*Gastro-intestinal:* Adhesions in the right hypochondrium where the gallbladder, ducts, duodenum, and the appendix form that great triad of uncertainty. The adhesions found may have been the result of pathologic changes, or they may have been the result of operations which were performed on a correct diagnosis, resulting on account of the pathologic changes, or as a result of incomplete hemostasis, rough sponging, failing to close denuded areas or ill advised drainage.

The roentgenologist can differentiate the

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.



diseased gallbladder or duodenum and adhesions around the cecum in a goodly percentage of cases, but they are at variance as regards the appendix.

Some consider an appendix diseased that cannot be visualized; others that if it visualizes, it is evidence of an incompetent ileocecal valve and that the appendix is diseased. The majority consider that an appendix that appears beaded or angulated is diseased, especially if it is also tender on palpation under the fluoroscope; here they qualify the opinion if the cecum of the ascending colon is not distended with gas.

Visceroptosis is another common finding in the cases which have been operated or in which a diagnosis is sought. Not quite so common, but of sufficient frequency to warrant consideration are: regional ileitis (about the etiology of which so little is known) when the lesion is near the head of the cecum; Meckel's diverticulum or other diverticuli near the head of the cecum; actinomycosis; tuberculosis, and malignancy involving the head of the cecum. The roentgenologist is of great aid in making a diagnosis in a majority of the above named conditions.

In the peritoneoscope in its present state of perfection, we have a very valuable aid in diagnosis. It was first demonstrated about thirty-five years ago and through the passing years it has been improved until it has reached its present state of perfection by Dr. John C. Ruddock. Through a quarter inch incision under local anesthesia, the pneumoperitoneum is produced, which causes practically no discomfort to the patient. The peritoneoscope with the trocar-like tip is pushed through the small incision in the abdominal wall, the trocar withdrawn and the lighted part of the instrument introduced.

In a majority of the instances, the contents of the abdominal cavity and, with the patient in the Trendelenburg position, the contents of the pelvis can be visualized. When the examination is completed, the air is allowed to escape and the incision closed with a stitch. The next day the patient is up. While, in a majority of cases, as much can be learned from peritoneoscopy as from exploratory laparotomy with its consequent confinement to bed and its expense, still in gastro-intestinal diagnosis it should be used in conjunc-

tion with the x-ray. It does not always visualize the appendix, but by eliminating other abdominal conditions, it is of great help.

I am not qualified to discuss the contra-indications. In a series of 900 various types of cases, Dr. Ruddock<sup>3</sup> states that the clinical accuracy was 61.4 per cent, whereas the peritoneoscopic accuracy was 93.64 per cent. The mortality of the procedure is 0.11 per cent. With these two mentioned procedures, the adhesions in the right hypochondrium and other disease present can be diagnosed.

Hookworm infestation is always to be considered as a probability in a large majority of cases with symptoms of a diseased appendix, and careful search for the ova should be done and its probability excluded by proper medical treatment.

*Amebiasis:* Alton Oschner<sup>4</sup> estimates that there are between 500,000 and 1,000,000 cases of amebiasis in the United States. Another authority estimates that 5 to 10 per cent of the population of the United States have amebiasis. Only a small percentage of the patients have amebic dysentery. I quote in part a personal communication from Dr. Oschner of the Department of Surgery of Tulane University: "I can state that 10 per cent of the cases admitted to our clinic with symptoms of chronic appendicitis have amebic cysts in their stools and completely recover following the use of emetine without the necessity of resorting to surgery."

Craig<sup>5</sup> stated that during the 1933 epidemic of amebic dysentery in Chicago many of the fatal cases had been operated on owing to the similarity of the symptoms present to those of acute or chronic appendicitis, and that the results of operation in those cases were often disastrous. In an analysis of 60 cases of amebic dysentery, Craig found that no less than 16 had appendicitis. Since it is sometimes difficult to find the cysts in the stool, Oschner deems it well to administer emetine in one grain doses daily for ten days in all cases where there is the slightest suspicion of amebiasis.

The pain of an incipient right inguinal hernia is sometimes misleading and is sometimes difficult to differentiate, except by the relief experienced by a night's rest and the return of the pain on exercise as the day passes.

*Urinary tract:* Stones, ureteral strictures, kinks, and Dietl's crises involving the right ureter can be differentiated by the urologist with a high degree of accuracy. However, it must be remembered that a chronic appendicitis may also be present.

*Pelvis:* The appendix seems to have a predilection for dropping down into the pelvis of the female and getting mixed in pathologic changes in the right side and nearly always adjacent, adhered, or diseased in inflammatory tubo-ovarian disease. In external endometriosis, a condition which Sampson and others consider as a result of the back-flow of menstrual material through the tubes in which the accompanying endometrial tissue finds lodgment on the pelvic wall and pelvic organs, and on the appendix causing pain and tenderness. Digital vaginal examination will make one suspect external endometriosis; the peritoneoscope will confirm it.

*Circulatory:* For years, and especially the past one or two decades with cardiovascular disease claiming more victims, the differentiation from chronic as well as acute appendicitis becomes more important, especially coronary disease, aortic spasm, and circulatory conditions. Under such circumstances, the mistake of doing an appendectomy for chronic appendicitis has often been made. A careful history, the x-ray, and a good, correctly read electrocardiogram will make the diagnosis clear.

Sensory nerve irritation in the right side can always be cleared up by careful examinations. Nerve tumors, especially of the spinal cord or coverings, while rare, can simulate chronic appendicitis. Patients who have multiple neuro-fibromatosis and having symptoms of chronic appendicitis should always be suspected of having a tumor of the spinal cord or nerve roots. Neurosyphilis in its various manifestations, as tabes dorsalis, girdle pains, abdominal crises, and such allied conditions under which it may masquerade as chronic appendicitis, can always be recognized; however, we should remember that a positive spinal fluid Wassermann with a negative blood Wassermann is sometimes found in the same individual. A careful neurologic examination will put the diagnostician straight.

Diseases of the osseous system, such as tu-

berculosis of the spine, Potts' disease, lumbar osteo-arthritis, scoliosis, etc., are to be considered, but can easily be excluded by proper means of examination, such as x-ray, etc. Very rarely chronic lead poisoning with its abdominal symptoms may be misleading, but is excluded by the lead lines on the gums and changes (stippling) in the red blood cells.

Finally, there is the type of case that is the "bete noir" of the surgeon and internist. Sometimes seeking relief through operation; sometimes presenting multiple scars on the abdomen, the patient complains in various ways, from palpitation and chest pains to abdominal pain and discomfort on eating, and the various nervous phenomena.

The patient goes from one doctor to another. After diligent examination, exhausting the diagnostic measures as outlined and finding no disease, there is a great temptation to say "neurotic," which is not a diagnosis, but an acknowledgment that there is nothing to be found.

George Crile's magnificent work on the endocrines and especially the adrenals, has in my opinion, gone a long way in giving hope to this type of patient. There is so little tangible, and practically no laboratory tests that are sufficiently reliable to give aid in their diagnosis. His experiments on animals of various types from the active, alert, aggressive tiger with its multiplicity of sympathetic nerves to its adrenals, to the slow-moving crocodile with its extreme paucity of adrenal nerves, led him to investigate the adrenals of the human. He found that the adrenal sympathetic nerve supply varied very much in different individuals, showing an increase in the nervous, high strung type; then he found denervation of the adrenals gave relief.

Also, of a similar type of patient is found the social and economic misfit, which Walter Alvarez so beautifully describes, coming with various symptoms, generally with multiple abdominal scars, abdominal pains, etc., having had an exhaustive examination and no pathologic changes found. He carefully analyzes their lives and occupations and frequently finds that their life work does not bring them happiness, or some other condition that makes them a social and economic misfit.



By proper advice as to their living or change of occupation their conditions clear up. Finally, out of a maze of difficulties in making a diagnosis of chronic appendicitis in a small percentage of cases, there has been much aid added in the peritoneoscope and a better understanding of the sympathetic nervous system, especially of the adrenals.

All the means of diagnosis must be used and frequent consultation with capable consultants, and all of it must be combined with judgment and acumen, analyzed and evaluated as Opie mixed his colors—with brains.

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#### DISCUSSION ON PAPER OF DR. A. J. MOONEY, SR.

*Dr. Kenneth McCullough* (Waycross): The 20 per cent of the cases operated on for chronic appendicitis who are not relieved constitute quite a problem. All of us know the embarrassment of having a patient come back with the statement, "Doctor, I am no better than I was before I was operated on." Dr. Mooney has covered the subject so thoroughly I am merely going to speak of one or two conditions. I have had no experience with the peritoneoscope. It must be a very valuable and simple adjunct in diagnosis.

As far as x-rays are concerned, I do not wish to speak disparagingly, but I have seen one or two appendices visualized in x-ray.

Intestinal parasites constitute a large percentage of the vague conditions in the 20 per cent not relieved. About fifteen or twenty years ago Waycross established a laboratory and brought a full time health officer there. It was due to G. E. Etwood and his efforts that amebiasis as a clinical entity was first established in our section of the country and the first amebiasis with which we came in contact. The diagnosis is fairly easy with competent laboratory facilities. It can be demonstrated by either specimens or cultures. I believe the laboratory runs cultures on all cases when in doubt. The case should not be discarded as not being amebiasis until three stools have been obtained. This is true also of hookworm. I think hookworm plays a big part in the 20 per cent of the cases. Pain in the abdomen and right side is often from intestinal parasites, undoubtedly. Conditions of neuritis are also important in diagnosis. Strictures of the urethra or small stones can simulate appendicitis as almost nothing else can. I had the misfortune several years ago to participate in an operation for appendicitis on a patient who turned out to have coronary occlusion. It made a vivid impression on me and I have never failed to attempt to rule out this condition. I think it is very important.

*Dr. J. C. Patterson* (Cuthbert): Dr. Mooney has, in his usual scholarly manner, so thoroughly covered this subject that there is very little left for discussion except to agree with him.

While it is true that there seems to be no reason why the appendix should not be the seat of chronic inflammatory condition without having had an acute attack, the vast majority of cases of chronic appendicitis are preceded by one or more attacks of acute appendicitis and in my humble opinion we should be very wary of making the diagnosis without the history of an acute attack.

No less an authority than the late Dr. John B. Deaver stated that appendicitis might be chronic from the outset, and that the chronic process may progress without acute symptoms. He divided these into chronic catarrhal, one-half of one per cent; chronic interstitial, 97 per cent, and obliterative type, 2 per cent; occasionally tuberculosis and actinomycosis or carcinoid.

Since Dr. Mooney mentioned many conditions that might be confused with the disease and Ochsner has enumerated 76 causes of abdominal pain, it is evident that time will not allow a discussion of all of them. I am sure that occasionally we all have had patients with nervous indigestion and pain in the right side, grumbling appendix which probably showed up in the x-ray as kinking or late emptying time. Removal of the appendix relieved the symptoms. And we all have seen most of those other conditions. There is one condition that I want to discuss that Dr. Mooney brought out in the 20 per cent of failures to get relief. These are the cases that I can illustrate best by giving an example. A woman was sent to me who had already had her appendix removed; she was a long, thin little viscerototic female. Her doctor sent her to me for gallbladder trouble. He said that she had an attack every night. After thorough examination the gallbladder showed up normal. I sent her home to tell her doctor that there was nothing wrong. Two days later he brought her back and said that this woman must have some trouble. She had symptoms typical of gallbladder disease. He insisted on opening her abdomen, which we did, and we found everything normal; then we closed the abdomen without removing the gallbladder. She didn't like that. A short time later I heard that she was at another hospital and had had her gallbladder removed. She went home. Then she had her uterus removed. A few months later she had an operation for adhesions. The last that I heard of her she was in the insane asylum. The P.M.S. of Alvarez or the constitutional inadequates of Crile. The medical men hold the surgeons justly up to scorn for operating on them. However, they do not offer them any relief either. But of course they should never be operated on. They are made more miserable by operation. Their only cure is a different set of ancestors. One should learn to beware of these people. It is the only way to avoid making mistakes. It is an awful mistake to operate on these poor people. The only way is to be very careful in studying these patients, especially the nervous type and don't operate unless they give a history of acute attacks of appendicitis.

*Dr. Olin S. Cofer* (Atlanta): My interest was aroused in the use of the peritoneoscope some years ago in that I felt that the abdominal cavity could be viewed as well through a small incision and the introduction of an instrument similar to the cystoscope as



any of the other closed sacs if the proper visual medium could be found. However, until Ruddock of Los Angeles devised his method of introduction of air in order to distend the abdominal cavity and by its lighter weight force the viscera to different portions of the abdomen by placing the patient in different positions, the various methods devised did not appeal to me because of the difficulty in keeping the intestinal coils out of the field of vision except when they were to be viewed directly. During the meeting of the Southeastern Surgical Association, Dr. Ruddock presented a paper describing in detail the technic in the use of his instrument. Since hearing this paper, I have had occasion to use the instrument in thirty-five or forty cases with satisfactory results.

The use of the peritoneoscope is similar in technic to the use of the cystoscope and the thoracoscope but presents considerable differences in the proper examination of the abdominal viscerae. A bird's eye view, so to speak, is the usual picture unless a section from the pathologic growth is contemplated although a closer view can be had by advancing or changing the position of the sheath. One using the instrument for the first time is very much surprised and will probably be unable to recognize the pathology of the organs viewed but with increasing experience more can be learned than by ordinary exploratory laparotomy except that none of the disease or organs can be palpated. It should be emphasized that the peritoneoscope is not intended for viewing the inside of any of the organs with the exception of the stomach. This is not a serious handicap because most of the inside of the viscerae can be well shown by the various roentgen ray examinations. The peritoneoscope also carries a small electric light attached to a Levine tube which can be passed into the stomach and the inside of the stomach viewed by reflected light. This shows very well the borders of a gastric carcinoma or ulcer but is not as accurate as the use of the x-ray or the gastroscope. The liver, gallbladder, small intestines, colon and the pelvic organs can be viewed quite well after a careful technic is devised and by perseverance. Biopsies can be readily taken through a separate telescope and the area cauterized by means of a diathermy tip which accompanies the instrument.

I believe that the peritoneoscope is a forward step in the diagnosis of intra-abdominal lesions but I am also of the opinion that accurate results will not be secured until after considerable experience in the use of the instrument. It is not an instrument for general use but should only be utilized by one who is willing to give the time to secure sufficient experience in order to properly interpret the findings. I have enjoyed Dr. Mooney's paper very much and am glad that he mentioned the peritoneoscope in his diagnostic armamentarium in that the results of operations for chronic appendicitis is in direct ratio to the accuracy of the diagnosis.

A conference on *Tomorrow's Children* was held at the Biltmore Hotel, Atlanta, November 9, 10, 11. Subjects discussed included: *Whose Will They Be?*; *What Opportunity Will They Find?*; *How Shall We Plan for Them?* Registration was limited to an invitation list. Leaders of southern organizations and groups were invited.

## CAROTID-JUGULAR ARTERIO- VENOUS ANEURYSM\*

JULIAN K. QUATTLEBAUM, M.D.  
*Savannah*

Although arteriovenous aneurysms are not unusual they rarely occur between the common carotid artery and the internal jugular vein. Reid<sup>11</sup> included none in his report of 26 arteriovenous fistulas treated at the Johns Hopkins Hospital. Callander<sup>4</sup> found 32 cases of common carotid internal jugular fistula in 447 cases of arteriovenous aneurysm collected from the literature up to 1920. Bigger and Lippert<sup>2</sup> collected 11 additional cases and added one of their own. Holman<sup>6</sup> reports one case in his book on arteriovenous aneurysm, making a total of 45 cases of arteriovenous aneurysm between the common carotid artery and the internal jugular vein that have been reported to date. Because of the comparative rarity of this condition and the unusual complications, the following case is reported:

### Case Report

C. J., a colored fisherman, 33 years old, was admitted to the U. S. Marine Hospital, Oct. 10, 1937, complaining of inability to walk or to use the right arm, a continuous roaring sound in the right side of his neck, and pain in the right side of his chest and in the right arm. While returning to his boat about 2:30 A. M. on Sept. 7, 1937, he was shot in the neck from a distance of approximately 8 feet, by a man who suddenly appeared directly in front of him. He was rushed to the Flagler Hospital at St. Augustine where he was given emergency treatment. The bleeding from the bullet wound was controlled with difficulty. For ten days following the injury he was unable to move the right leg and could barely lift the right arm. Although he suffered very little pain in the neck, soon after being shot he developed a rather severe pain in the right upper chest, radiating down the right arm to the wrist. About a week after entering the Flagler Hospital, he noticed the doctors and nurses examining the right side of his neck with unusual interest, and upon investigating he discovered the loud purring thrill and soon afterward became conscious of the roaring sound in the area of the bullet wound. When able to travel he was transferred to the Marine Hospital in Savannah.

On physical examination, the patient, a fairly well developed but poorly nourished negro man, presented a pulsating ovoid swelling in the right side of his neck in the angle between the sternomastoid muscle and the clavicle. In the center of this area was a well healed scar 7 mm. in diameter, the result of a bullet wound. Palpation of this area revealed a thrill which was continuous but more pronounced with each heart beat. The thrill could be felt above and below the scar for

\*Read before the Medical Association of Georgia, Atlanta, April 26, 1939.

approximately 6 cm., and laterally for about 4 cm. A very loud bruit with systolic accentuation was audible over a large area. Pressure on the scar would discontinue the thrill and bruit as would compression of the common carotid artery proximal to the lesion. The superficial veins of the right side of the neck and face were more prominent than those on the left, and the pulsation of the right temporal artery was thought to be some weaker than that of the left. The patient moved his head slowly and deliberately and complained of the pain in his right arm and right chest being aggravated by forced manipulation of his neck. The posterior muscles of the neck were spastic as if splinting this portion of the spine. There was tenderness over the lower cervical and upper dorsal vertebrae. The right pupil was slightly smaller than that of the left eye but both responded to light and accommodation.

The chest examination was essentially negative. Roentgenograms showed the heart to be of normal size but the aortic arch was slightly dilated. There was a moderate exaggeration of the lung markings with some congestion at the hilus areas. No heart murmur could be heard.

A neurologic examination disclosed marked atrophy of the muscles of the right shoulder girdle and arm with great weakness of the entire limb. No sensory changes were noted. Both knee kicks were hyperactive. There was foot-drop on the right side with inability to flex the thigh or extend the knee. Diminution of sensation over the left thigh and left leg was present. Bilateral ankle clonus was present. The plantar reflex was present and active. The Romberg and Babinski reflexes were normal.

The patient gave a history of having a chancre ten years previously without receiving antiluetic treatment, and his blood Wassermann was found to be strongly positive. The spinal fluid was normal. A moderate secondary anemia was present, the hemoglobin being 60 per cent and the red cells numbering 3,500,000 per cubic millimeter of blood. The blood pressure was 105 mm. Hg systolic and 55 mm. Hg diastolic. When pressure was made over the scar, closing the fistula, the blood pressure rose to 118 mm. Hg systolic and 70 mm. Hg diastolic. The pulse rate was 95 per minute, but compression of the fistula caused the rate to drop immediately to 80 per minute. Electrocardiographic tracings confirmed this drop in the pulse rate but were otherwise normal. Roentgenograms of the upper dorsal and of the cervical spine disclosed a .32 caliber bullet lodged between the laminae of the sixth and seventh cervical vertebrae on the right side, the end of the bullet being within the spinal canal.

There were no other significant findings. His condition was diagnosed as: arteriovenous fistula between the right common carotid artery and the internal jugular vein; spinal cord injury and persistent irritation from a foreign body (bullet); tertiary syphilis. Treatment with mercury and nearsphenamine was begun.

On Oct. 27, 1937, he was operated on under ether anesthesia. An incision 12 cm. in length was made along the anterior border of the right sternomastoid muscle. The cervical fascia was incised. The middle thyroid vein was ligated and divided. The prethyroid muscles, the thyroid gland and trachea were retracted

toward the midline, the sternomastoid muscle was retracted laterally exposing the carotid sheath. The carotid artery and jugular vein were densely adherent to each other and to the carotid sheath, presumably as the result of extensive hemorrhage at the time of the injury. The artery and vein were carefully separated from each other for 5 cm. above and below the fistula. The vein was inadvertently torn in the effort to free the vessels but the opening was promptly closed with a running suture of fine silk. The vagus nerve was firmly adherent to the posterior surface of the vein from which it was separated by sharp dissection. At the level of the fistula the artery was adherent to scalenus anterior muscle. After mobilizing the vessels, tapes were placed on the artery and vein separately, above and below the fistula, giving perfect control of the circulation through the opening. The fistula was divided and the artery freed from its adhesions to the posterior tissues of the neck, an oval shaped opening 1 cm. in diameter in the anteromedial surface of the vein, and a similar opening of like size on the anterolateral surface of the carotid artery resulting. In addition, a second opening 5 mm. in diameter in the posterior wall of the artery was disclosed when the vessel was completely mobilized. The bullet apparently had passed through the vessel, the second opening being its point of exit. The openings in the artery were separately closed with mattress sutures of fine silk everting the intima of the vessel. This was reenforced with a continuous suture of fine silk. The larger opening was closed longitudinally and the smaller transversely. The tapes were removed from the artery and the circulation was restored through the vessel without leakage, and with immediate return of pulsation in the right temporal artery. A piece of fascia lata 6 cm. in length and 3 cm. in width was taken from the right thigh and placed about the artery so as to make a cuff extending for approximately 3 cm. above and below the injured area. This was snugly sutured in place with fine silk and the excess fascia excised. The opening in the jugular vein was closed with a continuous suture of fine silk restoring the normal circulation. A piece of heavy silk was placed about the artery proximal to the sutured wound in the vessel in order to control the bleeding should an emergency arise. The wound was closed in layers.

The following day the patient was unable to move the right arm or leg. This was thought to be the result of traumatizing the cord from turning the head far to the left side during the operation, thereby increasing the pressure of the bullet on the cord. However, this soon disappeared and he rapidly regained his pre-operative status. The wound healed promptly and at no time was there any evidence of impaired circulation through the carotid artery. After a few days the anti-syphilitic treatment was resumed and on Nov. 26, 1937, the bullet was removed from his cervical spine under local anesthesia. The spine of the sixth cervical vertebra was removed, a partial laminectomy was done and the bullet removed with no trauma to the cord resulting.

Following the second operation he was again placed on antiluetic treatment and the right arm and leg massaged and bled. The pain and soreness in the chest and arm disappeared. He gradually recovered the use



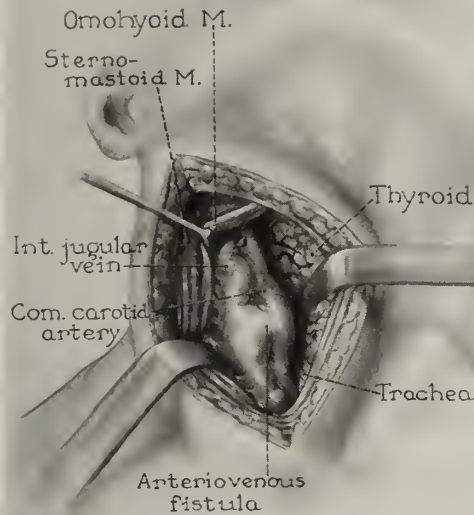


Fig. 1. Exposure of the arteriovenous aneurysm.

of his limbs and was able to walk without aid by January 1, 1938. His improvement continued and he was discharged from the hospital February 5, 1938 with no circulatory disturbance and only slight weakness of the right leg. He was advised to resume his former occupation.

#### Discussion

Carotid-jugular arteriovenous aneurysms are always of the acquired variety—the result of penetrating trauma. Following an injury involving the contiguous walls of an artery and vein, a clot forms which is later absorbed with the establishment of a side-to-side anastomosis. This communicating channel becomes lined with endothelium from the vein, with or without the formation of a sac, and a fistula results. Once the communication is established a sequence of pathologic changes is initiated. The extent and progress of these changes, their disabling effects and consequently the need of treatment is dependent upon the size of the fistulous opening, and the unobstructed return flow of blood to the heart.

The cardiovascular changes, the local and systemic symptoms resulting from arteriovenous fistulas are well known. The increase in blood volume, cardiac hypertrophy, progressive dilatation and elongation of the proximal artery, blood pressure changes, etc., have been convincingly explained by Holman,<sup>6</sup> and apply to carotid-jugular arteriovenous aneurysm, as well as those in other

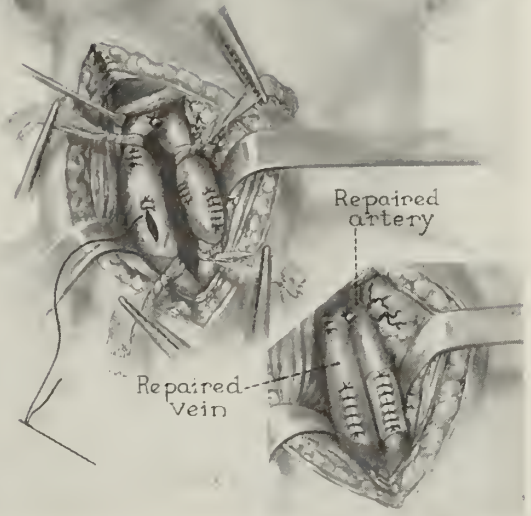


Fig. 2. The artery and the vein have been separated from each other. The openings in the artery have been repaired with a running suture of fine black silk. The repair of the vein has not yet been completed. The inset shows the repair completed, and fascia wrapped around the artery.

sites. The local symptoms of thrill, bruit, dilatation and often pulsation of the superficial veins are also present. Aneurysms involving the carotid and jugular vessels, however, present special problems peculiar to these vessels. Dienemann (quoted by Holman<sup>6</sup>) noted that headache, illusions, delirium, fainting, frequent and uncontrollable bleeding from the nose and mouth, disturbances in seeing and hearing, hemiplegia and aphonia; symptoms resulting from impaired cerebral circulation, are among the subsidiary effects of carotid-jugular arteriovenous aneurysm. It is evident, therefore, that the abnormal communication between the jugular vein and carotid artery should be eliminated as soon as practicable to prevent not only the serious heart damage and other degenerative vascular changes, but also that distressing cerebral injury may be prevented. Should the site of such a lesion be in a limb, following the elimination of the fistula, the nutrition of the part is improved with disappearance of the edema, ulceration and venous stasis and a return to the normal. However, it is well known that brain tissue has very little power of regeneration, and distressing symptoms from irreparable brain damage may conceivably persist following the successful repair of carotid-jugular fistula and restoration of the normal



circulation through the brain if the condition is permitted to exist indefinitely before treatment is undertaken.

The diagnosis of carotid-jugular arteriovenous aneurysm seldom offers any difficulty. The history of an injury, the characteristic thrill and bruit continuous throughout the cardiac cycle with systolic intensification, together with the bradycardia reaction of Branham, suffice to make the diagnosis almost certain. An absolute diagnosis can be made if an analysis of the blood taken from the vein near the lesion is found to contain an abnormally high amount of oxygen. The diagnosis can be confirmed and the site of the fistula localized by arteriography. Twenty-five cubic centimeters of thorotrast is injected into the artery proximal to the fistula, the vessel being compressed just above the point of injection, and roentgenograms are made as rapidly as possible. The artery, fistula and vein can be identified in this way.

The object of treatment in cases of arteriovenous aneurysms is to close permanently the arterial leak without disturbing the blood supply of the tissues beyond. The occasional spontaneous healing, and the not infrequent disastrous result that followed surgical interference made expectancy the treatment of choice for a long time. This attitude was encouraged by the failure of the profession to appreciate the casual relationship between this condition and the associated cardiovascular damage. However, a better understanding of the hydraulics of the circulation and the clearer recognition of the potential complication of arteriovenous aneurysms has changed this attitude. The best thought now is that the abnormal communication should be eliminated as early as practicable. This is especially true of carotid jugular fistulas. Palliative measures such as digital or mechanical pressure over the site of the fistula, or upon the main artery proximal to the fistula, may be tried for a time but should not be carried on indefinitely. In the acquired type of arteriovenous aneurysm only one fistula is usually present and the operative procedure is relatively simple and surgery offers the best chance of cure. The operation should be postponed until the patient has fully recovered from the immediate effects of the injury. This delay gives time for the development of col-

lateral circulation, permits healing of the wound, allows the superficial and deep infection to clear up and permits the tissues in the immediate vicinity to recover from the early inflammatory reaction and renders them more suitable for surgical handling.

In considering the type of surgical procedure to be used in a case of carotid-jugular arteriovenous aneurysm, the treatment should be directed toward preserving the carotid artery if possible. The jugular vein may be sacrificed, without serious disturbance of the cerebral circulation. Although Halsted held that the common carotid artery could be ligated with impunity in the young and that the incidence of cerebral disturbance increased with the age of the patient, hemiparesis of the opposite side due to nutritional disturbances in the cerebrum has been known to follow this procedure. Convulsions, coma, cardiac and respiratory irregularities, fall in temperature, blindness, diplopia, motor and sensory losses on the opposite side are additional phenomena that have been observed following ligation of this great vessel. Pilz (quoted by Holman<sup>6</sup>) found 32 per cent of 600 cases of ligation of the common carotid artery presented cerebral symptoms. Zimmerman (quoted by Holman<sup>6</sup>) found cerebral symptoms followed 26 per cent of 70 ligations. In Holman's<sup>6</sup> case uneventful recovery followed the excision of the fistula but some years later it was observed that ligation of the common carotid artery had caused a cerebral anemia with symptoms significant enough to warrant advising against ligation of this great vessel if it can possibly be avoided. Watson and Silverstone<sup>12</sup> had an operative mortality of 55 per cent in a series of 20 cases of ligation of the common carotid artery in patients with cancer of the head and face. These authors are of the opinion that the collateral circulation outside the cranium is of little significance after ligation of the common carotid artery and suggest that the variety of cerebral complications occurring after ligation of the vessel may be explained by the frequent variations and abnormalities in the arteries of the neck and brain. It is important, therefore, in a case of carotid-jugular fistula to attempt the repair of the openings in the respective vessels rather than to sacrifice the artery. Such a procedure is dependent

## SURGICAL TREATMENT

Operation	No. Cases	Cured	Died	Recurred	Unknown
Extirpation of Fistula	7	7	..	..	..
Dissection of Fistula	4	4	..	..	..
Lateral Suture of Artery and Vein					
Quadruple Ligation	3	3	..	..	..
Ligation of Fistula	3	3	..	..	..
Distal Ligation of Artery alone	2	1	..	1	..
Double Ligation of C. Carotid Artery	2	1	..	1	..
Ligation of Vein only	1	1	..	..	..
Proximal Ligation of Artery	1	1	..	..	..
Double Ligation and					
Resection of Vein Distal	1	..	..	..	1
Ligation of C. C. Artery					
Distal Ligation of A. and V.					
Proximal Lig. of Innominate	1	1	..	..	..
and Subclavian veins and					
Common Carotid Artery					
Prox. Lig. of A. suture	1	1	..	..	..
of Rent in Sac					
Double Ligation of					
C. C. A. Lig. of External	1	1	..	..	..
and Internal Carotid A.					
Double Lig. of C. C. A.					
and Lateral ligation	1	1	..	..	..
and resection of V.					
Anel's Ligation of C.C.A.	1	..	1	..	..
Hunter's Ligation of C.C.A.					
Transverse Endo-Aneurysmorrhaphy	1	..	1	..	..
Occlusion of V. with Band					
Excision of Arterial					
Aneurysm—Suture of					
A-V. opening—Ligation	1	..	1	..	..
of Sac and Jugular Vein					
Excision of Fistula					
Total Cases	32	25	4	2	1

Deaths—4

Anel's Ligation of Common Carotid Artery—Cause unknown.

Hunter's Ligation of Common Carotid Artery—Hemiplegia 6th P. O. day.

Transvenous Suture, Coronary Thrombosis, 11th P. O. day.

Excision and Suture, Pneumonia.

upon one's ability to control all vessels leading to and from the fistula, and upon sufficient mobilization of the vessels to permit accurate suturing. Since ligation of one internal jugular vein usually produces no symptoms, transvenous arteriorrhaphy becomes the procedure of choice if the situation is such as to prevent the ideal operation of repairing the fistula with preservation of the lumen of each vessel. Since it may not be possible to preserve adequate circulation through the carotid artery, one should not undertake the surgical treatment of these fistulas unless the patient being made aware of the possibility of ligating the common carotid artery, is willing to accept the risk and sequelae such a procedure may entail.

A brief review of the 46 cases of common carotid internal jugular arteriovenous aneurysm is of some interest.

These statistics are of academic interest only and certainly do not accurately represent the result of treatment. While the large percentage of cures is correct in that the patients were permanently relieved of their aneurysms, it is by no means certain that all of them were free of symptoms. Holman's<sup>6</sup> case in which the fistula was excised at the expense of the common carotid artery, was followed by definite symptoms resulting from impaired cerebral circulation although the patient was a young man. His experience must lead us to believe that many of the reported cases in which the operative procedure included the ligation of this vessel, surely developed sequelae of a disturbing nature.

*Summary and Conclusion*

Carotid-jugular arteriovenous aneurysms are comparatively rare, only 46 cases having been reported to date. A review of these cases

shows that spontaneous cures are most unusual and non-surgical treatment unreliable.

Common Carotid-Internal Jugular Arteriovenous Aneurysm

Total Cases (1921-1938)	46
Cases Treated	36
Cases Untreated	10
Cases Treated Surgically	32
Cured	25
Died	4
Recurred	2
Unknown	1
Cases Treated Non-Surgically	4
Cured	2
Unchanged	2
Cases Untreated	10
Spontaneous Cures	3
Died	1
Unchanged	6
Heart Changes Noted	13
Heart Normal	7
Heart Damaged	6
Heart not Mentioned	33
Causative Agent	
Sword 3	14
Stab 5	
Knife 6	
Bullet	23
Shell	4
Shrapnel	2
Flying Steel	1
Spontaneous	1
Trauma	1
Non-Operative Treatment	Cases Cured Failed
Posture—Turning of Head	1 1 ..
Tamponade and Compression	1 1 ..
Medicine and Ice	1 .. 1
Ice and Venesection	1 .. 1
Total Cases	4 .. ..
Cured	2 .. ..
Unchanged	2 .. ..

Surgical treatment is highly successful in eradicating the fistula but should be undertaken before irreparable damage is done to the highly specialized brain tissue. The circulation through the common carotid artery should be preserved if possible.

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DISCUSSION ON PAPER OF  
DR. JULIAN K. QUATTLEBAUM

Dr. Daniel C. Elkin (Atlanta): Dr. Quattlebaum has added to the literature a remarkable example of an arteriovenous fistula treated successfully and with great skill. I have long felt that the method of choice in most of these cases is quadruple ligation with complete excision of the fistula since this precludes recurrence and lessens the instance of thrombosis and the secondary hemorrhage. It can be carried out without danger to the circulation peripheral to the lesion because of the extensive collateral branches which always follow the establishment of a fistula.

However, as Dr. Quattlebaum has pointed out, this is not the method of choice when the fistula involves the carotid artery and internal jugular vein since the absence of branches of the common and internal arteries in the neck prevent the formation of a sufficient collateral blood supply to the brain. Therefore, the method described by Dr. Quattlebaum is the method of choice here although it is a far more difficult and more tedious technical procedure.

There are a number of reports where cerebral anemia and even cerebral necrosis follows ligation of the common or internal carotid arteries. I have operated upon four patients with fistulae between the common carotid and internal jugular vein. In three of these a procedure somewhat similar to that employed by Dr. Quattlebaum was used. In the fourth patient the fistula had been present for five years and I was able to do a quadruple ligation and excision without endangering the cerebral circulation.

ALLERGIC ENTEROCOLITIS  
WITH RECTAL PROLAPSE\*

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Bainbridge

In a previous report on the investigation of allergic enterocolitis,<sup>1</sup> the following points were presented:

“Patients in whom the rectum was relaxed and the intestinal mucosa was seen when the bowels acted will be referred to as cases of rectal prolapse. Those patients showing the rectum relaxed but in whom the intestinal mucosa cannot be seen will be referred to as cases of rectal relaxation.

The small number of cases reported is not due to the scarcity of the disturbance, but to the fact that in connection with these particular patients certain circumstances were

\*Alternate paper on the scientific program at the Ninetieth Annual Session, Medical Association of Georgia, Atlanta, April 25-28, 1939.



present that permitted more positive deductions.

"First, those patients who had not responded to ordinary form of treatment for a period of seven to fourteen days; second, a definite allergic history could be obtained either in the child or in his immediate family.

"Tests were made for every article of diet that the child ate or could receive from its mother's milk."

A summary of the findings in the ten cases presented were:

*Feeding:* Breast alone in 4 cases; breast and other foods in 2 cases; very restricted diet in 3 cases; regular diet in one case.

*Bowels:* Rectal prolapse in 5 cases; rectal relaxation in 3 cases; loose bowels in 2 cases.

*Associated Conditions:* Eczema in 1 case; cramps in 1 case; fever in 2 cases; vomiting, cramps, and underweight in 1 case.

*Past Personal Allergies:* Asthma in 1 case; urticaria in 1 case.

After the symptoms had entirely cleared in these patients, I fed the offending foods to the patients experimentally, and each time the patient reacted with an upset of the bowels. The experiments were not continued long enough to produce either rectal relaxation or rectal prolapse since the well being of the little patients had to be regarded, but the indications led me to believe that such conditions would be the eventual result.

Since the first report, additional patients have come under my observation, and the results of the investigation may be summarized as follows:

There were 12 cases of rectal prolapse, 8 cases of rectal relaxation, and 11 cases of enterocolitis without either rectal prolapse or rectal relaxation.

There were 7 cases with associated conditions and 3 cases with past personal allergic manifestations.

The youngest patient was 1 month, 23 days old, and the oldest was 4 years, 13 days old.

#### *Symptoms Present*

Frequency of bowel movements (from 5 to 40 in 24 hours); much mucus; greenish color of feces; usually soft curds; very watery discharge; straining at the time of movement; blood was present in the cases of prolapse, absent in the other cases.

The intradermal method of testing was used, and included all articles of food the child was receiving directly or might possibly receive indirectly through its mother's milk. In each patient positive reactions were obtained to one or more foods in either class. It appeared in clinical observation that allergens received through the mother's milk were secreted with great rapidity.

As might be expected, milk was found to be the most common offender. In these milk-sensitive cases, the skin test may be strongly positive, weakly positive, delayed, or even negative in reaction. Omission of the offending food from the diet was the only treatment necessary, but it was also found that the use of evaporated milk, boiled evaporated milk, changing from one cow to another, or to goat's milk, was sometimes

enough to relieve symptoms. However, in some cases all milk and milk products had to be withdrawn.

In one case, the skin-test was negative, but the symptoms entirely disappeared when milk was given from another cow than that originally used.

There were two deaths in this series. In both cases, no skin reactions were obtained to the tests, and the omission of milk from the diet had no effect.

As positive allergic histories cannot be obtained in all clearly allergic cases, it is reasonable to assume that there are many cases of allergic enteritis with negative allergic histories, including a large percentage of enteritis in infancy.

Since rectal prolapse and rectal relaxation are often present as complications in the severest forms of enterocolitis, it may be found that many such cases are primarily allergic.

The usual treatment for enterocolitis is often no more than elimination diets of one type or another, including changes in type or preparation of milk, so that although diagnoses have frequently not been made with a conscious consideration of allergy, the treatment is the same as would be demanded in allergy, fortunately for the patient.

As is well known, the diagnosis of specific cause of food allergy in an infant is much easier than such a diagnosis in adults, but from the observations on my series I feel that even in children the specific cause may be hard to find, especially in cases with associated disturbances.

In order to obtain the findings and opinions of other allergists, I wrote to 170 of them throughout the United States and Canada, and from them I received 106 replies. From these the following conclusions seem indicated:

1. Rectal prolapse and rectal relaxation have not been considered allergic manifestations.

2. No reports of allergic skin tests on such cases have been found.

3. Rectal prolapse is seldom diagnosed except in the Southern States, and here it is not common.

4. Some allergists admit that theoretically rectal prolapse and rectal relaxation could be of allergic origin, and advance different reasons for this opinion. Others doubt the likelihood of such an origin without further investigation.

6. Cases of rectal prolapse in infancy have usually been cared for by the general practitioners and pediatricians without special training in allergy.

The following are extracts from the replies to my inquiry:

W. H. Browning, Shreveport, La.: I feel quite certain that your deductions are correct. I am of the opinion that a large proportion of the diarrheas of children are purely allergic. The diets usually prescribed by pediatricians are excellent elimination diets, and for this reason the individual clears up readily as a rule. I am wondering if these cases should not be called allergic enterocolitis with rectal prolapse or rectal relaxation. A more descriptive terminology is needed in these cases.

S. George Wolfe, Shreveport, La.: I think most pediatricians would agree that many diarrheas of early and middle infancy are due to intestinal allergy. Since rectal prolapse in infancy occurs so frequently as a

complication of diarrhea, it is certainly not unreasonable to conclude that the diarrhea or atopic state predisposing to the prolapse is often on an allergic basis. It is of great interest to me that many of the severe cases of colic one sees in early infancy are undoubtedly on an allergic basis.

W. B. Adamson, Abilene, Texas: Your letter brought a new idea to me. As far as I know I have not seen a case of rectal prolapse associated with allergy.

Erle D. Sellers, Abilene, Texas: I have seen several instances of pruritus but rarely diarrhea associated with allergy.

Marion T. Davidson, Birmingham, Ala.: It sounds very reasonable to me that if a person with gastrointestinal allergy continued to eat the offending food that the resultant long continued straining might result in relaxation or even prolapse of the rectum.

Joseph Harman Fries, Brooklyn, N. Y.: I am personally inclined to doubt any direct relationship, although I am not secure or conversant on the subject.

Robert Turell, Brooklyn, N. Y.: I've been on the lookout for such cases but unfortunately I have not encountered any.

C. S. Bucher, Champaign, Ill.: I have no experience in such cases. I can readily see that such cases might occur.

Clarence Bernstein, Jr., Chicago, Ill.: I cannot feel that these conditions are allergic. I might suggest even that the allergic condition is possibly a chance accident. One must be willing to admit, however, that in young children and infants, particularly with a chronically swollen rectal mucous membrane, which may be secondary to an allergic state, that prolapse could ensue.

I. Harrison Tumpeer, Chicago, Ill.: For some reason I have seen very few cases of rectal prolapse, but I have seen just the opposite, namely, spasm of the rectum in allergic children, who belong in what is commonly called the diathetic group.

Joseph B. Biederman, Cincinnati, Ohio: I have never seen a case of rectal prolapse or rectal relaxation that could be said to be on an allergic basis. Your article sounds very interesting.

W. C. Service, Colorado Springs, Colo.: My experience with rectal prolapse and rectal relaxation are too extremely limited to make any statement as to their being allergic in origin. . . on the whole, they are not likely to be allergic, although some cases with pronounced allergy might fall into this group.

Anton Oelgoetz, Columbus, Ohio: I believe it perfectly logical that rectal prolapse, secondary to atonicity of the bowel musculature, could be due to allergy.

A. E. Drexel, Daytona Beach, Fla.: The subject sounds very interesting and promising.

W. T. Wooten, Hot Springs, Ark.: My work is devoted to allergy as it pertains to synovial reactions. However, I do find a great many arthritics who have mucous colitis and often both synovitis and colitis are due to the same allergen.

Homer E. Prince, Houston, Texas: I can conceive of allergy playing a part in these conditions. Possibly the mucosal swelling in the proper place might serve to draw the rectum out by the peristaltic effort to pass the swelling.

George Piness, Los Angeles, Calif.: Like all other men in medicine, one is interested in a certain phase of

a subject and constant search for these cases usually gives him a larger series than one might casually observe.

William A. Mowry, Madison, Wis.: We do see a great many cases of spastic colitis, some of which, we feel, belong in the sensitivity category.

G. H. Fonde, Mobile, Ala.: I do not doubt in the least that ingestion allergens would cause this (rectal prolapse) as often as it does swollen lips. I do not think it deserves to be considered as the most frequent, but only as one of the causes in food allergy cases. I have seen it many times in babies from colitis and marasmus with constipation as a factor.

F. M. Pottenger, Jr., Monrovia, Calif.: There is a group of allergic individuals who are prone to show general relaxation in most tissues of the body. This may include the rectum.

Z. Bercovitz, New York, N. Y.: If this condition is more common in your experience than that of the pediatricians up here it may possibly be due to the fact that you are constantly on the search for these types of cases. The incidence of rectal prolapse and rectal relaxation met with here is extremely low.

Bret Ratner, New York, N. Y.: I can conceive of severe diarrhea of an allergic nature including prolapse of the rectum in an infant predisposed to this condition.

Joseph Harkavy, New York, N. Y.: The individual having inherent weakness, plus some form of food hypersensitiveness producing spasm and edema of the rectal mucosa, may possibly end up with rectal prolapse.

Albert H. Rowe, Oakland, Calif.: I have seen a number of patients with severe colitis of long standing, which was undoubtedly of allergic origin, but the syndrome which you mention has not been observed in my work.

Ralph Bowen, Oklahoma City, Okla.: Don't you believe that in the allergic child where there has been poor food assimilation and rather faulty nutrition that the rectal prolapse is only an expression of a systemic problem and not a local syndrome?

George I. Blumstein, Philadelphia, Pa.: I have seen several cases of pruritus ani due to food allergy, and see no basic fundamental reason why the same mechanism might not apply to other rectal conditions.

Orville Harry Brown, Phoenix, Ariz.: I can well believe your premise to be true.

Merle W. Moore, Portland, Calif.: I believe that many of the obscure gastro-intestinal troubles may be on an allergic basis.

Warren T. Vaughn, Richmond, Va.: We see mucous colitis and spastic colitis in which there is an undoubted allergic factor.

Norman Ward Clein, Seattle, Wash.: We do find certain obstinate cases of constipation which are relieved on allergic management.

Grafton Tyler Brown, Washington, D. C.: The only case of rectal prolapse I have encountered was in a definitely allergic child.

Armand E. Cohen, Louisville, Ky.: I think already too many abnormal conditions are attributed to allergy. I believe that men doing allergy should be most conservative in calling things allergic that may prove otherwise lest the practice of allergy fall into disrepute.

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## TRENDS IN THE MARCH OF MEDICINE\*

EDGAR D. SHANKS, M.D.

*Atlanta*

"One hundred years ago a prime objective of the three medical societies in Georgia was to combat quackery. The Georgia Medical Society of Savannah and the Medical Society of Augusta were local associations, but the Central Medical Society of Milledgeville was state-wide in its self-limited membership of forty." Ten years later THE MEDICAL ASSOCIATION OF GEORGIA was organized and the activities of medicine in this State were enlarged. Beginning in 1849 with less than one hundred members, including the great Crawford Williamson Long, the "horse and buggy doctors" of yesterday probably did not realize that their newly-formed State Medical Association would grow to its present numerical strength of more than nineteen hundred members. Also, it is quite probable they did not anticipate the many changes that have taken place in medical education, medical practice and public health work in the century following their organization meeting.

Crawford Long and his contemporaries had their problems to be sure, but so have all the others of every generation. With the advance of civilization, the problems of living and making a living have become more complicated; but the problem of rendering adequate medical care to all of our people has also become a matter of considerable importance. While the span of human life has been increased during these hundred years, this increase has brought new problems—always something to influence changes in the rendition of medical care and the measures used to prevent the spread of disease. Time will not permit recounting all of these changes or, I might say, achievements, therefore I shall limit my discussion to some of the present trends in the march of medicine.

Until a few years ago our profession was allowed to go along with its normal development without the hazard of outside interference; this was especially true before the World War. Then all at once the sociologists and others not intimately connected with

medicine began to analyze, and in some instances find fault with the medical profession. They said we were not rendering a full medical service to the citizens of this country despite the fact our morbidity and mortality rates were as low or lower than in most other countries. In some instances they softened their criticism with statements saying the people could not afford to pay for adequate medical and hospital care, at least a great majority of them could not. Finally, these reformers were joined by others, mostly labor groups, whose minds possessed socialistic trends, and pressure was brought on United States government officials to take cognizance of this so-called national problem—termed inadequate medical care.

Perhaps I should remind you that these socialistic-minded persons ignored the activities of county medical societies, state medical associations and the American Medical Association, all of which have all of these years sponsored and sought support of every movement for the advancement of medical education, medical practice, expansion of public health services, and the improvement and standardization of hospitals and other institutions which care for the sick, the insane, the crippled and the blind. Also, they forgot that ordinary shelter, ordinary clothing and ordinary food were just as important in the "adequate medical care" program as are physicians, nurses, hospitals, drugs and other medical supplies. Indeed, every physician knows that his patient must have the so-called essentials to life before much progress can be made with any sort of medical care.

Many of our newspapers and magazines have devoted much space to discussion of this problem of medical care. Certain Foundations have sponsored surveys to determine the health needs of our people, and the United States government has spent many thousands of dollars to enhance its "New Deal" attitude toward medicine, directed mainly for the advancement of government-controlled medicine. Typical of some of the criticism is the statement: "There is much that is grievously wrong with the present system of providing medical care for the American people. That's a fact which the American Medical Association cannot cry down with all of its frantic arguments."

\*Read before the Carroll County Medical Society, Carrollton, September 11, 1939.



Other argument advanced in the cause of what has been called "adequate medical care" include: "If the Federal government can spend many millions of dollars in protecting cities and farms from the ravages of floods, should it not in all decency spend more millions in protecting the people from the ravages of disease? . . . If the government can spend millions of dollars for the relief of the needy, should it not spend millions in preventing and curing the illnesses which explain so much poverty?"

A small group of physicians joined the socialistic-minded laymen in assailing the present system of rendering medical care. Many of these physicians were teachers in medical schools or were connected with some governmental agency, and probably formed their conclusions without the benefit of mature investigation. In other words, they observed the people who frequent clinics and hospitals supported by public funds, most of which need from time to time new buildings and additional equipment. They joined in the cry for some national health program with the hope that local problems would soon be solved. They forgot that most of our people seek their private physicians and private hospitals when in need of medical and hospital care. They, too, got the idea that all physicians and all hospitals were out-of-step except themselves.

In justice to all of these people, physicians and laymen alike, it must be said that our present system of rendering medical care is imperfect, but may I ask them why are the morbidity and mortality rates as high, or higher, in some countries where socialized medicine is practiced than in the United States? After all is said and done, the health of any nation is judged by comparing these rates.

All of this discussion and surveys led to various proposals to give so-called adequate medical care to all of our people, but it was soon found that the health needs vary in different states and in different communities in the same state. Nevertheless, so much had been said and done, officials of the Federal government proposed a National Health Program. Strange to say, many of the proposals set forth in the program were the very things the medical profession of this country

had sponsored all of these years. I refer to increased public health services, aid for maternal and infant welfare, help for the crippled and the blind, better care for the insane, aid for persons suffering with cancer or tuberculosis, control measures for such diseases as syphilis and gonorrhea; and, finally, aid for persons who are medically indigent. What the profession objected to in the program were: 1. The setting up of a system of compulsory health insurance; 2, a hospital expansion program, which might result in building new government hospitals in many places where adequate hospital facilities now exist; and 3, subsidies for medical and hospital programs, which would be under the control of politicians and to whom much of the money intended for relief of the indigent sick would be paid for administrative costs.

The trend of medical care today, therefore, is vastly different from the time of our forefathers. We are living in a country with a population of more than one hundred thirty million people, with more than one hundred fifty thousand physicians and with more than six thousand hospitals, and yet it is said we have inadequate personnel and facilities for the care of our people. Also, efforts have been made by some people to impress upon our minds that we are incapable of solving our own problems, that the Federal government should solve them for us and that we should sit idly by and see swept from the people whom we serve all those things which we know are for their protection.

It has been said that the medical profession cannot go beyond the economic conditions of the people it serves. This may be argument for advancement of a national health program, but since the physicians of this country have solved their problems thus far and have morbidity and mortality rates which compare favorably with the most civilized nations, I believe we should continue to strive to perfect our American system of medical care. Government aid for public health activities is always desirable, but even this should be controlled and no public health program should encroach upon physicians' rights. It would be just as fair for the government to go into the automobile business and supply each of its citizens with a car at actual cost as it would be to adopt a national health program

which, it is believed by many, would lead to inadequate medical care. Also, we should never get away from the principle that each community should bear the expense, at least most of the burden, of any program.

During the past year it was my privilege to travel in almost one-half of our states in addition to making many trips through Georgia. I saw everywhere evidence of progress: nice farms, good homes, thriving towns and cities; good schools, good churches, good roads and other things that make for civilization and happiness. But what pleased me most was to observe the progress made in sanitation. This meant to me that our people probably would not have certain infectious diseases. Finally, I saw in many of the small towns new hospitals to take care of the people in the event they acquired disease. The trend of medical care, therefore, is to keep pace with other activities: schools, waterworks, electric light plants, churches, roads and other things commonplace today. Despite what has been said regarding inadequate medical care one can point to much progress in this field.

We have in America a sufficient number of trained physicians for our present needs, but there is no doubt many of these men and women could better serve the nation and their respective states and communities if there was a better distribution of physicians. In other words, our cities and larger towns have too many physicians while the smaller towns and farm communities have too few physicians. However, this problem is not as serious as it might be, for we now have better transportation facilities, and in most sections of our country one may have a physician within a reasonable time after he is called.

What has been said about the distribution of physicians can also be said in regard to the distribution of hospitals. In Georgia most of our hospitals are located in twenty counties, and yet when one examines a map showing their location he finds only two areas in the State which might suffer from inadequate hospital facilities.

Of course, much of the discussion regarding the distribution of physicians and hospitals, whether adequate or inadequate, can be settled by determining whether or not a given community will support either, or both. Such support must include moral as well as

financial. Hospitals at their best are poor financial risks as private enterprises, no matter how much support they have. In our State, with its one hundred fifty-nine counties and many small towns, no provision was made until recently to aid our hospitals for the care of the indigent sick. As many of these institutions have been operated as private enterprises, the owners had to take the financial loss when indigent patients were hospitalized. Often the owner of the hospital was the physician in charge of the patient and was compelled to give him medical care, which meant additional financial loss. At the recent session of the General Assembly an enabling bill was enacted which will permit counties to levy a tax for the medical and hospital care of their indigent sick. With this assistance from taxes, every county in Georgia can now contribute to its own community hospital, or some nearby hospital, for the care of this class of patients. Through cooperation with county medical societies, some counties can, and should, build hospitals as the needs arise. If sufficient physicians are not now available in some communities it is quite certain that desirable men will locate where adequate workshops (hospitals) are provided. Of course, it will be possible for two or more counties to combine their hospital program. In the larger towns, especially in the industrial areas, group hospital insurance is now available and will, I hope, help both the prospective patient and the hospital in solving their financial problems.

Finally, in connection with such community hospitals, and I believe we should have more in Georgia if we are to render the best medical care to our people, public health units may be operated for the benefit of every citizen in a given county or group of counties. Public officials should cooperate with county medical societies and seek their approval of any proposed project. Each county medical society should cooperate with all interested parties, including the State Board of Health. Certainly, this is the right direction in the trend of medical care: community cooperation and community planning without too much State and Federal aid. Such procedure will go a long way in solving the health needs of our people and will, in my opinion, solve much of what has been called inadequate medical care.

# THE IMPORTANCE OF DIFFERENTIAL DIAGNOSIS IN HEART DISEASE†\*

## Report of Cases

L. MINOR BLACKFORD, M. D.  
Atlanta

Before Mackenzie, the heart specialist, enjoyed using Greek words and musical terms from the Italian in describing murmurs: such an expert required the education of a prima donna. A little later the cardiologist's chief interest lay in the irregularities, but now he bows down and worships the electrocardiogram. You recall the famous remark of a scientific clinician, "A 'heart specialist' is a man who owns an electrocardiograph but who doesn't know a darned thing about the heart."

It is a lot of fun to know precisely what valvular lesion is present; a lot of fun to know that the block involves the right bundle branch instead of the left (or vice versa, depending on what authors on electrocardiography you accept), and one should always secure as much information as possible about his patient's heart. Yet Mackenzie insisted years ago, and it is still true, that nothing in cardiologic diagnosis is so fundamentally important as the question, "What can the heart do?" Sir James would seem to have emphasized this principle a bit too much, for a patient may have heart disease without symptoms and still need a certain amount of advice and supervision to keep him out of trouble as long as possible.

In the differential diagnosis of heart disease, then, these are the most important questions:

Is heart disease present in this patient?

If so, is it causing his symptoms?

If he is suffering with heart disease, are the symptoms caused by myocardial or coronary insufficiency?

In endeavoring to answer these questions accurately, nothing is more important than a carefully taken history, but this is not enough for there is no one symptom that cannot be

produced by other conditions. A careful examination of the whole body is necessary and various laboratory procedures may also be required.

## Cases of Heart Disease with Symptoms from Other Causes

*Case 1.* Dr. A, a negro physician in his middle thirties with well marked rheumatic aortic insufficiency, suffered an attack of acute pulmonary edema in the summer of 1935. With rest in bed for two months, digitalis and sedatives, he was able to resume his practice, though confining himself to office work. Dr. A. later became subject to frequent nocturnal attacks of "gas" with shortness of breath. These became worse when he left off his sedative. In the summer of 1936 he experienced a second attack of acute pulmonary edema. He recovered from this also in the course of time but his "gas" continued to bother him so much that he all but stopped eating. A gastro-enterologist (Dr. John B. Fitts) called in consultation, after a careful study including x-ray examination, agreed with me that his "gas" was of a purely functional origin. With the moral support of the stomach specialist and increased doses of the sedative, he got along very nicely until pneumonia in January, 1938. Shortly after that he suffered a series of attacks of acute pulmonary edema, but he has been working hard and steadily now since August, 1938.

*Comment:* This patient has been very difficult to manage. Dr. A. knows only too well that he has serious heart disease of a type peculiarly apt to result in sudden death, and that the next attack of acute pulmonary edema may be fatal. I do not blame him in the least for his concern. I am presenting the case to emphasize that during the greater part of four years this physician's suffering has been principally from anxiety. In passing, the sedative employed is an unusual one that is imported and the mystery involved perhaps does him as much good as the barbiturate salt.

*Case 2.* Mr. B, a constitutional inferior, achieved his life's ambition at 54. Shortly afterward he was taken ill with flu; during this illness he was reminded that he had a loud precordial murmur. Being such as he was, and having sufficient income from various sources to be able to indulge himself, he preferred to stay in bed and have his mother wait on him than to go back out into the hard cold world. The old lady in turn was lonesome in the apartment all day alone. She had been worrying for fifty years for fear that she "would not be able to raise that boy."

*Comment:* B. had never had any bona fide symptoms of heart failure and he had been lying flat in bed without even a pillow for five months, so it was evident that the symptoms were not due to his heart. My diagnosis was patent interventricular septum: may I remind

†From Emory University School of Medicine.

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.



you that in such cases the smaller the opening the louder the murmur?

Mr. B. received no digitalis or similar medication, but he did receive psychotherapy in massive doses, and after three months went back to his job. Now that he has been able to work regularly at his white collar job for nearly nine years, he is himself quite convinced that he is not afflicted with heart disease of consequence.

#### *Functional Disorders of the Heart*

Case 3. C D, a highly neurotic college student, was seized with palpitation and tachycardia at the end of a wrestling match. An intern was summoned: he looked very grave, said that the younger boy had a bad heart and ordered him to bed. When not in the hospital, C had his bed pulled close to his mother's so that he could reach her at any moment during the night. The mother fortunately was endowed with a certain amount of intelligence and C himself was tired of staying in bed, so the time was ripe for improvement when I was called in a year later. The boy was of course pale and wasted, but otherwise he was physically normal. I took him out of bed and put him on graduated exercises that soon included tennis and swimming.

Some months later he phoned me one night complaining of another "heart attack." The fourth time he phoned I went around expecting to give him a severe lecture on his "nervousness," but I found him a bit cyanotic with a heart rate of 176. The diagnosis of paroxysmal tachycardia at this time was obvious: C received intelligent sympathy and understanding for the first time. I am happy to say that he is now working regularly and has not had a similar attack for almost seven years.

*Comment:* If his first "heart attack" had been correctly diagnosed as of no great importance, this college boy would have at least been spared a year in bed with all that time for uninterrupted introspection.

Case 4. The Reverend E, aged 45, took life very seriously. After being under a heavy nervous strain, speaking 16 to 20 times a week, he began to notice an irregularity of the heart. He was put to bed and given many medicines, including digitalis in large doses. A grave prognosis was extended. When he was brought to Atlanta a diagnosis of digitalis poisoning was made. The electrocardiogram showed a nodal block. All medication was stopped, but many hours were spent in encouraging him. Two weeks later the electrocardiogram was normal and two weeks after that he was back at his preaching, though he was begged to take an afternoon off at least once a week to go fishing. Nearly two years later he writes that his health is excellent.

*Comment:* This case illustrates nicely the effect that nervous strain, complicated by vigorous medication, may have upon the heart.

#### *Anemia as a Cause of Symptoms*

Case 5. F G, a boy of 18 who had had a negative physical examination a few months earlier, passed large black stools for several days. Because of a blood pres-

sure of 60/0 and a diastolic murmur at the base, I was asked to see him. The boy's hemoglobin being reported 15 per cent, I concluded that his blood pressure and murmur were due purely to the anemia. After transfusion of 800 c. c. of whole blood, the blood pressure became 106/60, the murmur disappeared and he got better. Later I asked the surgeon to open him up to investigate my diagnosis of peptic ulcer or Meckel's diverticulum. The surgeon however was not willing to gratify my curiosity as the boy was apparently in perfect health. Four months later F G left Atlanta.

Case 6. Mr. H, aged 32, had suffered with an intermittent high fever for several weeks, with profound anemia. There was a harsh to-and-fro murmur at the apex. Many physicians saw him and many thought that he was suffering with subacute bacterial endocarditis superimposed on an old valvular lesion. At autopsy Hodgkin's disease was diagnosed: the endocardium was quite normal.

Case 7. A negro of 40 came to the medical clinic complaining of shortness of breath, inability to lie flat and precordial pain on exertion. His hemoglobin was less than 4 Gm. and further studies revealed the presence of lymphatic leukemia. He died in a few weeks.

*Comment:* Profound anemia from any cause of course results in weakness, and often it also produces heart murmurs. It is not so well known that anemia may be responsible for angina, though before the days of liver therapy angina was not infrequently traced to pernicious anemia. If the cardiac symptoms are due to anemia, they will clear up with restoration of the blood.

#### *The Deficiency Diseases*

Case 8. Mr. J., aged 48, was incapacitated with posterolateral sclerosis. A diagnosis of tabes had been made on the neurologic findings. He had a large flabby heart (fluoroscopy) with a murmur at the apex, and some edema of his ankles. My diagnosis was vitamin deficiency. With liver intramuscularly and large doses of Vitamin B, his heart returned to normal, the edema disappeared and the neurologic signs improved. He died of intestinal obstruction six months later and autopsy revealed no evidence of heart disease,—nor of syphilis.

*Comment:* Dr. John E. Walker<sup>1</sup> of Columbus and others have written of beriberi heart in recent years. We must get away from the idea that avitaminosis is an outlandish disease that occurs only among experimental pigeons and Chinese coolies who live on polished rice. Many Americans suffer from lack of vitamins, occasionally because of poverty, occasionally because their intake of alcohol leaves little appetite for other necessary drinks or for solid foods containing vitamins, but more often because they have gone on a fool diet. It is therefore important to inquire into the previous diet of patients with cardiac

symptoms and to be sure that no patient under treatment for heart disease (or anything else) lacks sufficient vitamins.

### *The Thyroid and the Heart*

The relation of goiter to cardiac disturbance is well known and we hear plenty about the "thyrotoxic heart,"—and about exophthalmic goiter masked as heart disease. In rare cases it seems that prolonged hyperthyroidism has done irreparable damage to the heart, even though the goiter itself may be burnt out. Otherwise, after a brief period of iodination, subtotal thyroidectomy will cure the patient unless there is independent disease of the heart.

Less is known about the uncommon myxedema heart. Dr. John W. Brittingham<sup>2</sup> reported such a case before this Association in 1935 and Dr. Bruce Logue has recently treated another at Grady Hospital. When the basal metabolic rate is very low, the heart is very large and cardiac symptoms are present, one may hopefully elevate metabolism.

Parenthetically, a few years ago total thyroidectomy was advocated for the control of intractable heart disease. It is interesting to note that for congestive failure this operation has already completely gone by the boards, and now it is only rarely done for angina. Realizing that myxedema itself is hard on the heart, the futility of the operation should have been anticipated.

### *Miscellaneous*

Arteriovenous aneurysm places a severe tax on the heart which eventually will be unable to meet the demands. Surgical correction of the fistula will restore the heart to normal. By the way, a brilliant young surgeon in Boston has recently operated for patent ductus arteriosus not only without a mortality in some half dozen cases, but also with great benefit to each patient.

Sinus arrhythmia, as you all know, is of no consequence. Mackenzie even went so far as to say it was a sign of a normal heart. Extra systoles also are usually of no importance, though sometimes they indicate poisoning from too much digitalis or tobacco.

Many a neurotic woman complains of "shortness of breath;" on close questioning she will explain that she feels as if she were not getting enough air into her lungs, so she

has to take a deep breath,—and she will obligingly illustrate. So far I have never encountered a patient with this sighing type of respiration who also exhibited organic heart disease.

Apparent enlargement of the heart will be noted in every very fat person with a wide costal angle and a high diaphragm,—and sometimes this transverse dislocation will also cause a murmur simulating that of mitral stenosis. Pleural effusion, spontaneous or therapeutic pneumothorax, eventration of the diaphragm, emphysema or asthma may also cause dyspnea and cardiac embarrassment.

Ascites may be due to cirrhosis of the liver, tuberculous peritonitis, abdominal or pelvic tumor. Nephrosis and other types of Bright's disease may cause so much edema as to tax the circulatory apparatus.

Edema of the legs may be due to a gravid uterus, phlebitis or varicose veins. Many healthy persons who stand on their feet most of the time, in hot weather will exhibit a little swelling around the shoe tops by the end of the day. And extreme sunburn of the legs may also result in superficial edema severe enough to cause considerable concern.

### *Conditions Simulating Coronary Disease*

Let us never forget that pain around the apex (and here is where the neurotic layman usually locates his heart) is very rarely related to the heart. Neither let us forget that arthritis of the spine, tumors of the cord, shoulder bursitis, excessive use of tobacco, especially cigars, gastric hyperacidity, diaphragmatic flutter,<sup>3</sup> etc., may suggest angina.

Since the days of John Hunter, himself a victim, it has been well known that physicians are especially subject to angina pectoris. Every doctor feels he is apt to make his exit by the coronary route,—and many of us are right. Sixty-seven years ago Adam Hammer<sup>4</sup> of St. Louis diagnosed coronary thrombosis during life, but it was not until Herrick's famous paper<sup>5</sup> in 1912 that the general clinician was enabled to recognize it. Unquestionably however, coronary thrombosis is now diagnosed too often. Dissecting aneurysm is especially likely to be mistaken for coronary thrombosis.<sup>6</sup>

### *Lesions of the Central Nervous System*

Case 9. In 1936 Mr. L, aged 70, was operated upon by Drs. Ballenger, Elder and McDonald for carcinoma



of the prostate. He enjoyed almost three years of reasonably good health: indeed he spent two days bird hunting last December. When he came back on Jan. 3, 1939, for a periodic check-up, Dr. Ballenger by some occult means known only to an experienced and expert clinician, realized he was a sick man and sent him to the Crawford W. Long Hospital. He walked in almost unwillingly. Twenty-four hours later he suddenly became short of breath. The intern made a diagnosis of coronary thrombosis and a little later I was called in consultation. The normal blood pressure, the normal pulse, the normal heart sounds, the normal size of the heart and the absence of signs of congestive failure indicated that the heart was not at fault. Bulbar palsy and other neurologic signs together with the deep, slow, stertorous respiration pointed to a lesion in the brain stem. While the possibility of a metastasis was considered, the sudden onset caused me to make a diagnosis of hemorrhage into the pons. Thirty-six hours later Dr. Francis P. Parker was able to verify this diagnosis.

*Comment:* Increased intracranial pressure, as from skull fracture, brain tumor or spontaneous subarachnoid hemorrhage, may also cause respiratory distress.

#### *Pulmonary Infarction*

*Case 10.* Mr. M., an old man with marked sclerosis of his cerebral arteries and a senile myocardium, underwent a transurethral resection of the prostate. His convalescence was marred by a slight fever and a rapid pulse for three weeks. After he had been allowed to sit up a few days, he was encouraged to walk. He tired rapidly and asked to be helped back into his high hospital bed. As he got in bed he collapsed, coughed a few times and his lips turned white.

When I saw Mr. M some hours later he was irrational and slightly cyanotic. Respiration was 54, blood pressure 130/106 and pulse 142. A friction rub and signs of consolidation were found in the left axilla. A diagnosis of pulmonary infarction was made and oxygen was administered with sufficient morphine to quiet him. He improved rapidly. Within a week he was walking again and further convalescence was uneventful, though signs in his chest were slow in clearing up. Now more than two years after the operation he is still enjoying fair health.

*Case 11.* A physician went through a similar experience except that his embolism was fatal in a few minutes.

*Comment:* I am sorry I didn't have serial electrocardiograms in the first case following the catastrophe. In the second I did take one before the accident. This indicated such a good heart that, even without autopsy, I am sure of the diagnosis.

Paul White<sup>7</sup> first called attention to the differential diagnosis of pulmonary infarction: it is only too apt to be mistaken for coronary thrombosis. According to White, the electrocardiogram is characteristic: An S wave develops in lead 1, the T wave in lead 2 tends

to be low or inverted and the T wave in lead 3 is deeply inverted. Lead 4 (the chest lead) remains normal except that the T wave is flattened or inverted.

Of course pulmonary embolism may occur postoperatively in young persons just when they are about to leave the hospital to go home, but it is not common. However when an elderly person who has been in bed a couple of weeks after operation (particularly after a pelvic operation and even more particularly if infection is evidenced by a slight fever), suddenly collapses, the probabilities are very greatly in favor of pulmonary embolism. Only too often the embolism is almost immediately fatal. Yet, if the embolus is not too large (that is, if the patient is still living when you get to his bedside), oxygen continuously and opiates freely may bring him through.

#### *The Stomach and the Heart*

*Case 12.* Dr. N, aged 43, was shocked to hear that a close friend, apparently in excellent health when they had been talking together that day, less than an hour after their conversation had died of thrombosis of the coronary supplying the posterior wall of the heart.

That evening Dr. N ate not wisely but too well of country sausage. He woke up early the next morning with burning in his epigastrium. He feared that this signified thrombosis of the coronary supplying the posterior wall of his heart and that he too was dying. Finally he mustered up sufficient courage to get up for some soda and the pain promptly subsided. The next day he could still taste sausage grease. Electrocardiograms and regular strenuous exercises indicated that his coronaries are still in pretty good condition.

*Comment:* This physician passed through agonizing minutes that seemed hours. He had real pain from hyperacidity, but his agony was from fear.

*Case 13.* Dr. O, aged 65, experienced sudden terrific pain in his epigastrium. He believed that he was suffering with coronary thrombosis. Some fourteen hours later operation for perforated ulcer of the stomach was too late to save his life. This case needs no comment.

#### *Discussion*

Not infrequently a patient with organic heart disease suffers more from nervousness and worry than from his heart. However, dyspnea and pain in the region of the heart and even swelling of the legs are not always due to heart disease. To properly treat a patient with heart disease, one must first take a careful history, make a complete physical examination and determine that he has heart disease, just what type of heart disease he has, and that this heart disease is at the root of his trouble.



Digitalis is not a cure-all: indeed in the absence of a failing heart muscle it is of no value whatever.

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#### DISCUSSION ON PAPER OF DR. L. MINOR BLACKFORD

*Dr. H. C. Atkinson:* Dr. Blackford has proved to my satisfaction, at any rate, that a man may own an electrocardiograph and still know something about the heart. It seems to me that this question of cardiac diagnosis can be, in essence, summed up as the recognition and proper interpretation in most cases of the three cardinal symptoms of heart disease: edema, dyspnea and pain. As Dr. Blackford has said, any of these or all of them can be due to causes other than the heart and it is the duty of the man who is going to treat these cases to determine whether these symptoms are cardiac or not.

The edema may, of course, be from renal causes, or extrarenal causes other than cardiac.

Dyspnea may be due to trouble in the lungs as well as from cardiac causes.

Sometimes both pulmonary and cardiac trouble is present and we have to try to evaluate the degree to which each is playing a part in the particular case.

When it comes to pain, I think it quite true, as Dr. Blackford said, that the majority of people who come to the Doctor and say, "I have pain here over my heart" have nothing wrong with the heart at all. However, we are seeing more and more cases of serious heart disease presenting symptoms of pain. This pain, it is recognized, when due to the heart is associated with ischemia of the heart muscle. This ischemia is due to a blocking of the coronary arteries caused either by anatomic changes such as sclerosis or by spasm of the coronary arteries or it may be due to a combination of these two factors. A complete block may be due to a mechanical factor such as a clot. In other cases such as cardiac neurosis it is due to spasm of the coronary arteries. The combination is represented by a case of sclerosis or heart lesion in which an artery is partially blocked. Then from worry or other cause it becomes spastic, producing temporary complete block or angina pectoris. We are coming to think of angina pectoris, not as a heart disease but as pain in the heart due to various factors.

The electrocardiogram will not practice medicine for us any more than will the fluoroscope. They are very helpful in the study of disease and in helping us to treat the patient. They won't treat the patient for us. I know of no better principle of treatment than what

is commonly called common sense for the group of cardiac conditions such as Dr. Blackford outlined. The more common sense we can apply in the interpretation of symptoms and the application of treatment to them, the better off they will be.

*Dr. Ralph E. Porter (Savannah):* In 1922 at Bellevue Hospital, New York, the Department of Cardiology held an evening meeting in which an attempt was made to evaluate electrocardiology. Dr. Thomas Lewis, of England, was a recognized authority on the subject at that time, and was so considered at this meeting.

In 1926 at a meeting held in London, Dr. Lewis stated that he did not have an electrocardiograph in the hospital of which he was in charge, as he did not have time for such experimental work.

In 1928 at Johns Hopkins Hospital I quoted Dr. Lewis's statement that he was not using electrocardiology in hospital work. Dr. Bridgmond who was in charge of the Cardiac Clinic replied that there has been a great deal of experimental work with the electrocardiograph, but that experimental work had resulted in its general and valuable usage.

In 1933 I had a patient under observation in whom I could not establish or rule out cardiac disease. I referred her to Boston to Dr. Gordon, and those associated with him, who examined her. Before ruling out cardiac disease they took the history, physical examination and electrocardiograph findings in consideration, not one, but all.

Within the past six months an apparently healthy United States Officer reported to the U. S. Marine Hospital, Savannah, for a check up, because he had recently fainted. This history suggested that he might have some cardiac lesion. He was examined by a physician of this State, Dr. S. P. Sanford, who reported that he had a partial coronary occlusion and recommended that he be retired. He based the diagnosis and prognosis partly on history, partly on physical examination and partly on the findings of the electrocardiograph. This man's fellow officers and friends criticized the hospital for recommending that this officer be retired. Dr. Sanford, who originally made the diagnosis, using not the electrocardiograph alone, but the patient's history, physical examination and the electrocardiograph, stood by his guns and said the man should be retired. Before the controversy could get well started the officer died suddenly.

Dr. Lewis acknowledged that electrocardiology was in the experimental stage in 1925. By 1930 it had reached the point where it was giving definite and good information. It has not replaced any accepted method for examining the heart, but is a very valuable adjunct.

*Dr. L. Minor Blackford (Atlanta):* I did not say the electrocardiograph is not necessary in the treatment of heart diseases. For example, I once saw a man of 60, who was nervous and irritable. I couldn't find any evidence of heart disease until I took an electrocardiogram. Then I said, "You do have coronary disease" and 16 hours later he had a thrombosis. I don't know whether I scared him into it or not. May I repeat: when heart disease is suspected, examine the heart by every means at your disposal, but also make every effort to discover some other explanation of the symptoms. And if heart disease is verified, use common sense, as Dr. Atkinson has emphasized, in your treatment of the patient.

# CALCULUS IN DIVERTICULUM OF THE FEMALE URETHRA

## *Report of Case\**

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The rarity of this condition prompted us to report our case, which we feel is unusual because of its long duration, approximately twenty years. In a review of the literature we found thirty-four cases reported; twelve of these since 1934. The last comprehensive review was presented in 1934 in an article by Shivers and Cooney.

## *Etiology*

In considering the etiology of this condition we will consider that of the diverticulum first, for the diverticulum is usually but not always present before the stone is formed. These diverticuli are usually located in the middle third of the posterior wall of the urethra. The various etiologic factors predisposing to their formation are:

1. Injury to the urethral floor during labor or by instrumentation. Due to its position beneath the symphysis the urethra is subjected to the trauma of the oncoming head and the pressure exerted by this force weakens the muscularis with subsequent herniation of the submucosa and mucosa.

2. Abscess of the suburethral tissue with rupture into the urethra leaving a persistent cavity.

3. Occlusion of urethral glands on the floor of the urethra with subsequent retention cysts, and later emptying into the urethra from infection or trauma.

4. Cysts of the vaginal wall which erode through the posterior urethral floor.

5. Congenital, as described by Hoene and Viet.

6. Secondary stones lodging behind a stricture or tight meatus and causing subsequent dilatation and pocket formation.

Stones found in the urethra are of two classifications, primary and secondary. Primary stones are those originating in the urethra. They may be formed around a foreign body, or originate from a deposition of

urinary salts as a result of stasis and infection either behind a stricture or in a diverticulum. Secondary stones are formed in the upper urinary tract and due to the short length and easy distensibility of the female urethra are usually passed on out. However, some may lodge behind a stricture or tight meatus and cause subsequent erosion of the mucosa, and pocketing, or they may fall into a diverticulum where they remain and continue to grow.

## *Diagnosis*

The patients complain of various symptoms, such as frequency and urgency of urination, dysuria, hematuria, perineal pain or purulent discharge from the urethra. A diagnosis cannot be made from the symptoms alone as none of them is pathognomonic. Vaginal examination reveals a hard, tender mass in the anterior vaginal wall in the region of the urethra. Passage of a sound or metal bougie will elicit a characteristic click when the instrument comes in contact with the stone. Sometimes the stone is too deep in the diverticulum for this to be elicited as it is not reached by the instrument. An x-ray film will, of course, show the stone. If the pelvis is tilted to about a 40 degree angle, the stone will be brought out from behind the symphysis where it can be more easily seen.

## *Treatment*

The simplest treatment is the removal of the stone by forceps introduced through a urethroscope or Kelly endoscope with fulguration of the lining of the diverticulum. This can only be done if the stone is small and the mouth of the diverticulum is fairly large. If the stone is too large to be removed through the urethra without producing considerable trauma, it had best be pushed back into the bladder where it can be crushed.

Cures have been reported after simple incision through the anterior vaginal wall, packing the sac and allowing granulation tissue to close the fistulous tract. Shivers and Cooney recommend preliminary suprapubic drainage for diversion of the urine to be followed by complete removal of the sac and repair of urethral wall. Hunner thinks this too extensive surgery for such a simple situation. Hunner's treatment consists of excision of the sac through a midline incision of the

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Figure 1

The pelvis was tilted at a 40° angle. The stone can be seen at the upper edge of the symphysis. The other calcified areas are outside the urinary tract.



Figure 2

The diverticulum can be seen by the side of the cystoscope. It has been injected with Skiodan.

anterior vaginal wall, and separate closure of the three layers of tissue, after which a urethral catheter is introduced into the bladder and strapped to the thigh.

In our case a meatotomy was done after dilatation of the urethra with sounds. The mouth of the diverticulum was dilated with forceps and the stone was crushed and removed piece-meal. The urethra was irrigated to remove any remaining fragments and the mucosa was scarified, but no attempt was made to cauterize it. Examination of the urethra one month post-operatively revealed a complete closure of the sac and healing of the urethra with complete disappearance of all symptoms.

#### Case Report

The patient was a colored female, aged 55. For the past twenty years she had experienced increasing difficulty in urinating, with polyuria and nocturia (now about fifteen to twenty times). And for nearly this length of time she noticed a small mass in her vagina. Two years ago she noticed a profuse, foul discharge from the vulva which necessitated wearing a pad constantly, and which persisted up to time of admission. About a year ago she began to pass streaks of blood and had slight burning at times with occasional sudden, involuntary cessation of urinary flow, but no complete retention. For the past year there has been marked increase in frequency and nocturia, and lately she has been unable to hold her urine and frequently it dribbles on coughing or laughing. Pain has been present in the perineum for about a year.

In 1928 she had a pan-hysterectomy. For the past two years she has had a dull ache in the region of her heart and epigastrium. She has had edema of the feet and ankles, which is worse at night. She also has dyspnea on exertion and has lost 50 pounds in weight during the past year. She has had numerous fainting

spells, especially since December 1938, with complete loss of consciousness; at times for 24 hours.

*Physical Examination:* Temperature 98.6 degrees, pulse 88, respiration 20, blood pressure 260 over 150. Well developed and well nourished colored female. Hearing grossly decreased. Eyes show bilateral optic atrophy. Pupils do not react to light. Conjunctivitis of left eye. Heart moderately enlarged to left. Lungs normal. Lower midline suprapubic scar. Moderate tenderness posteriorly over both kidneys. External genitalia show early senile changes. Cervix and uterus not palpated. Urethra slightly gaping. Entire extent of urethra on vaginal examination is indurated and enlarged and at the midpoint there is a hard tender nodular area about 2x2 cm. in size. There is a brownish sero-purulent urethral discharge which can be expressed by pressure on the anterior vaginal wall. Reflexes are hyperactive.

*Laboratory:* Blood—R. B. C. 4,850,000, Hb. 90 per cent; W. B. C. 7,400; P. 76, L. 21, B. I. E. 2. Urine 4+ pus cells, 2+ strep. and staph., Alb. 1+. Blood Chemistry—Sugar 86.9, N. P. N. 25.0, Creatinine 1.5. Wassermann negative.

A cystoscope was introduced without difficulty and revealed a normal bladder except for a mild cystitis. On examination of the urethra, about midway down on the floor, an opening could be seen through which was viewed the tip of a calculus. Intravenous pyelograms revealed a normal upper urinary tract. Flat plate revealed a density measuring 1.5x1.3 cm., lying in region of the urethra.

On Mar. 30, 1939, under gas anesthesia the stone was removed as described above and a No. 16 mushroom catheter was inserted into the bladder, which was removed on April 6. A good stream of urine could be passed without any pain or burning. Patient was discharged April 11; returned to the clinic several times for check up and passage of sounds and when last seen on May 2, the urethra had healed completely and the patient was symptom-free.

#### Summary

In a review of the literature only thirty-four cases have been found reported.



The most common cause of this condition is believed to be trauma of the urethra due to childbirth.

Stones are primary or secondary in origin, either being formed in the urethra or are formed in the upper urinary tract and lodging in the urethra.

There are no pathognomonic symptoms. On physical examination a hard mass is felt in the anterior vaginal wall.

There are several methods of treatment outlined.

A case of twenty years' duration has been added to the literature.

## CARCINOMA OF THE THYROID GLAND

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It is generally conceded that cancer of the thyroid, if it has progressed to the point where a clinical diagnosis is certain, is incurable. Scientific research has progressed until now we know where cancer is likely to occur and how it acts. With the aid of surgery, x-ray and radium we are able to delay its progress in many instances, and in some cases to report cures.

The incidence of cancer of the thyroid gland, compared with benign enlargement of the thyroid, differs in various clinics. Graham reported 1.2 per cent cancer in nodular goiter; Balfour, at the Mayo Clinic in 1918, reported an incidence of 1.6 per cent and later from the same clinic it was reported as 3 per cent. Clute, at the Lahey Clinic in 1929, reported an incidence of 1.68 per cent and three years later reported 2.86 per cent. Collier reported 4 per cent, Speese and Brown 4.6 per cent, and Kocher, in Switzerland, 10 per cent. The percentage appears to run higher in the areas where goiter is endemic. Our small series, in a supposedly non-goitrous area, was 2 per cent.

The classification of malignant disease of the thyroid is difficult. Clinicians cannot differentiate the various types of malignancy before operation, therefore the problem is left for pathologists to solve. The classification which appears to be simple, and the one most commonly used, is:

1. Papillary adenocarcinoma
2. Adenocarcinoma in adenomas
3. Diffuse adenocarcinoma

It is a well known fact that at least 90 per cent of the carcinomas of the thyroid develop in pre-existing adenomas. Graham reported that 90 per cent of his cases of malignant disease of the thyroid arose in pre-existing adenomas, and that in many of the remaining 10 per cent he was unable to state that they did or did not arise in an adenoma.

According to Collier, of Ann Arbor, adenomas of the thyroid are present at birth and may or may not undergo further development in adult life, the fetal type being the most common. An adenoma of the thyroid is definitely a pre-cancerous lesion. At the Mayo Clinic the incidence of cancer of the thyroid is 2 women to 1 man; this varies a great deal in different localities. My series of 15 were women. Cancer of the thyroid is rare in children; however, Kennedy, of the Mayo Clinic, reported 8 patients under 14 years of age who had low grade malignancies.

C. W. Mayo stated: "Diagnosis is comparatively easy in late cases, and one does well to average a 50 per cent correct diagnosis prior to pathologic examination." In his series of 737 cases showing malignant changes, 23 per cent of the patients were under 40 years of age, 9 per cent under 30 years, and the average age was 50, the average age for men being 53.1 years and for women 48.4.

Collier reported 25 per cent positive diagnosis before operation, 28 per cent presumptive diagnosis before operation, and 47 per cent not suspected. In our series 30 per cent were positively diagnosed before operation, 30 per cent were presumptive or suspected, and 40 per cent were not suspected until the pathologic report was received.

Cancer in exophthalmic goiter is rare. Pemberton reported 1 patient out of 276. Klute and Warren reported 4 cases, and stated that it was their belief the malignancy occurred in a coincident adenoma in the hyperplastic gland. The basal metabolic rate is not elevated in the majority of malignant thyroids, and apparently when it is elevated, the elevation is due to the benign rather than to the malignant growth present.

The "carcinoma in adenoma" is more serious than the papillary or diffuse type. The

\*Read before the American Association for the Study of Goiter in Cincinnati, Ohio, May 24, 1939.

higher the grade of malignancy the shorter will be the life of the patient after operation and treatment. Crile gives the following percentages according to classification:

Malignant adenomas, 78.3 per cent

Papillary carcinoma, 17.2 per cent

Diffuse carcinoma, 4.5 per cent

Metastatic tumors from other organs to the thyroid gland are occasionally seen, and include hypernephromas, carcinoma of the tongue, breast, stomach, esophagus and lungs. Rankin reported a case of metastases to the thyroid from cancer of the colon. Following cancer of the prostate gland and of the breast, cancer of the thyroid most frequently metastasizes to bones, the most frequent sites being the skull, vertebrae, inferior maxilla, sternum, pelvis and long bones. Formerly, it was thought that benign goiters metastasize, but this idea has been proved incorrect. Delannoy and Dhalluin, of Brussels, stated positively "that all goiters with metastases are always malignant, although the primary lesion in the thyroid gland may be latent. The data emphasizes the necessity for examining the thyroid for unsuspected malignant disease, whenever a neoplasm is found in a bone. In most of the cases tabulated, the metastases were in a bone and death occurred in one to seven years." Breitner and Just, of Jena, state that "metastases, without other signs of malignancy is peculiar to thyroid cancer." Their research covered 103 cases. In the majority an existing goiter more or less suddenly showed signs of malignant degeneration. Of the signs of malignant disease, rapid growth is the most important, although difficulty in breathing occurs more frequently; sudden hoarseness in a goiter patient is a grave sign as is also difficulty in swallowing; loss in weight is less important. The cancer patients in their series lived 3 months to 12 years.

Occasionally Reidel's struma is mistaken for carcinoma, but it is usually bilateral and the enlargement is uniform and no nodules are present. One of our suspected cases turned out to be Hashimoto's struma lymphomatosa. A complete excision of the gland was done, and the real condition was not suspected until the pathologist reported on the specimen. Sudden hemorrhage into a thyroid adenoma producing pressure symptoms may be con-

fusing, but the rapidity with which the enlargement occurs, in a few hours or a day, with marked local tenderness and pressure in the neck should give one a good idea of the diagnosis. Malignant degeneration of an adenoma does not occur so rapidly.

Carcinoma of the thyroid has a marked tendency to invade the veins and to metastasize through the blood stream to the lungs and bones, and metastases to the brain is not uncommon. In one of our patients there was metastasis to the spinal cord in the cervical region with complete paralysis. Lymphatic dissemination of a malignant adenoma of the thyroid is rare, and when it does occur invariably the cancer has broken through the capsule and invaded the adjacent structures of the neck, including the lymphatic glands. When it has advanced to this stage and has invaded structures which cannot be removed it is beyond all hope of cure. In these patients the enlarged thyroid gland is fixed or "frozen," and any operative procedure is futile, except a decompression operation to prevent the patient from suffocating due to the pressure on the trachea. Irradiation is indicated in these cases and prolongs life. It is probable that long before the local invasion of the carcinoma, the veins have been invaded and metastases to other organs have occurred.

Crile advocates resection of the internal jugular vein on the affected side, with a low ligation, resection of the inferior thyroid veins and a lobectomy. In one of my patients the malignant adenoma extended below the sternoclavicular articulation and was firmly adherent to the pleura, which was injured in its removal, leaving a sucking wound of the chest and a collapsed lung. The pleura was closed and the patient died of pneumonia on the fifth day.

Since all adenomas are considered precancerous and it is impossible to determine just when a benign adenoma becomes malignant, with statistics showing that 50 per cent of the adenomas of the thyroid develop thyrotoxicosis, 2 to 10 per cent become malignant; and, according to Hertzler, the remainder die of heart disease, the time to remove a discrete adenoma is as soon as the diagnosis is made regardless of the basal metabolic

reading. The risk is slight in such operations. Adenomas should never be treated by drugs or by x-ray.

In patients where discrete adenomas are removed at operation, and sent to the laboratory, and the pathologist finds carcinoma when it was not suspected, 80 to 90 per cent have an excellent prognosis for permanent cure.

According to Crile, radical operations are indicated in patients over 40 with a history of recent enlargement of a pre-existing goiter, and the finding of a stony hard uncalcified tumor in one lobe of the thyroid gland, is indication for a radical excision of the affected lobe and its venous tributaries.

Indications for palliative procedures: Extensive bilateral involvement of the thyroid by a malignant tumor is usually associated with invasion of the contiguous structures and indicates incurability. Likewise paralysis of one or both vocal cords before operation shows extracapsular extension. Crile states: "There is no case in the Cleveland Clinic series in which a permanent cure has been obtained when laryngeal paralysis was present before operation." In our series we wish to report one case of a five-year cure which is an exception to this rule.

#### *Case Report*

Mrs. K. W., aged 61; widow; seen March 3, 1934.

*Chief Complaint:* Enlarged thyroid gland and hoarseness.

*History:* Has had a small goiter since a young woman, which apparently gave no trouble until about 2 years ago, when the goiter began to grow on the left side and to produce pressure symptoms with a husky voice. She consulted a surgeon who refused to operate, and advised x-ray treatment which was given in 1933. The growth became smaller and the symptoms were less marked for a year or more. A few months ago the growth began to enlarge and the voice became hoarse again. She consulted a throat specialist and he found the left vocal cord paralyzed. He sent the patient back to the roentgenologist for another series of x-ray treatments. While taking x-ray treatment recently, she spat up a large clot of blood and the same day she passed a tarry stool. The balance of the history not relevant.

*Physical Examination:* Weight 180 pounds, heart rate 140-160; no murmurs. Blood pressure, 200/100. Tremor, none. Thyroid gland showed an enlargement the size of a golf ball on left side. It was hard and fixed. Basal metabolism reading was minus 8; otherwise not relevant.

Six weeks later under a general anesthetic a total ablation of the thyroid was done. The tumor mass was fused to the trachea and was dissected away with

difficulty. The nerve on the left side could not be located and no parathyroid bodies were seen. The patient's voice was hoarse after the operation; she swallowed and breathed normally. On the third day she began to whisper and had some difficulty in breathing and swallowing; she then suddenly developed symptoms of tetany and became cyanotic and unconscious. A tracheotomy was done through the operative incision; a Levin tube was inserted through the nose and she was given calcium gluconate intravenously and parathormone hypodermically; she regained consciousness promptly. The pathologist reported diffuse carcinoma with marked fibrosis throughout the glands; very little glandular substance remaining. The patient recovered after several weeks' illness and there has never been any recurrence. Now, five years later she takes calcium gluconate three times daily. Recently she had several attacks of angina pectoris.

Pain associated with a malignant thyroid is an unfavorable sign; it indicates invasion of the capsule and an involvement of the cervical plexus of nerves. Fixation of the tumor also indicates invasion of the capsule and the contiguous structures, and that the condition is probably incurable.

In the presence of such findings and with demonstrable metastases to the lungs or bones a radical operation is futile, and one should rely on irradiation for palliation. In some instances dyspnea may require tracheotomy.

Prognosis is not good in the late cases, and a radical operation should be done in suspected cases resecting the veins along with the tumor, to be followed with irradiation. Give 3,000 to 4,000 roentgens to the affected area as soon as the wound has healed. The present recognized treatment for carcinoma of the thyroid gland is thyroidectomy and irradiation.

The results in our series of 15 cases are as follows: 4 deaths. One was caused by metastases to the spinal cord three months after operation; one by pneumonia on the fifth day; one by brain metastases within a few months; and one by metastases to bone. Three patients could not be traced. Eight patients were living 2 to 25 years after operation.

#### *Conclusions*

1. All discrete adenomas of the thyroid should be considered pre-cancerous and should be excised promptly.

2. Malignant tumors occur in approximately 2 per cent of all patients with thyroid disease.

3. It appears most commonly between



the ages of 40 to 60, but it is by no means rare in young individuals.

4. The great majority of carcinoma of thyroid develop in pre-existing benign adenomas.

5. Carcinoma rarely develops in a true exophthalmic goiter.

6. Malignant adenoma is the most common malignant tumor of the thyroid.

7. Malignant adenoma and papillary carcinoma are the only types ever cured by surgery.

8. Malignant adenoma extends into and metastasizes through the veins.

9. "Excision of the veins of the neck is comparable to axillary dissection in carcinoma of the breast." (Crile.)

10. The prognosis, after complete excision and irradiation, is fairly good.

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#### VALUE OF GALLBLADDER OPERATION

Fifty-seven of sixty-three patients operated on for gallbladder disease before the age of 30 were consequently free of symptoms, Carl Bearse, M.D., Boston, states in *The Journal of the American Medical Association* for May 13.

Dr. Bearse's study was made in an effort to determine the course of the disease and the end results following operation in this age group. Thirty-six of thirty-seven patients with gallstones were entirely relieved; seventeen of twenty with disease of the gallbladder but without gallstones were either greatly improved or completely relieved.

He finds that "these sixty-three patients represent about 21 per cent of 300 similar consecutive operations for gallbladder disease at all ages.

#### MEMORIAL EXERCISES\*

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*Chairman, Committee on Necrology*  
*Atlanta*

Those of us who languish briefly and un-awares in the fleshly comfort of health, do well to lay a tribute of memory and respect at the feet of those who were our members and friends, and who have merely gone on before. It is true every year and it shall be true to the end. There is a requiem in every death but there is no respite from death itself. We doctors work to prevent, to lengthen the span, to postpone the occasion, to outwit and circumvent the cold, stark, unwelcome and uninvited guest—this debt of nature each one owes and each one always ultimately pays. But Charon still runs his ferry across the dark and underground river Styx, about which Homer and pagan mythology sang so freely. Some men live ill and give no will to death; others disregard it in their thoughts and refuse even to meditate upon it; and still others include its influence in their daily lives and try to live well that they may die well. We all know that death is certain, its time uncertain, and to do justly, to love mercy, and to walk humbly with our God constitute the best transportation for the human soul. The old cry still goes up "beyond this bourne of time and place," if a man die shall he live again? The Great Physician has gone on ahead to prepare a place for his brother physicians and their innumerable hosts of patients, and as the Supreme Clinician of the body, the mind and the spirit, if it were not so He would have told us.

Our average membership for the past four years is 1,800, with a low of 1,689 members four years ago, and a high of 1,966 members at this meeting. There are 2,756 medical doctors in Georgia, of whom 200 are negroes and of these 70 live in Atlanta. Our Association averages 40 deaths per year, which is 2.22 per cent mortality in an average membership of 1,800. This year there were 38 deaths, or an average mortality among 1,966 members of 1.93 per cent. The average mortality through the years is about 2 per cent,

\*Memorial Exercises before the Medical Association of Georgia, Atlanta, April 27, 1939.

or 2 per hundred, 20 per thousand, or 1 in 50 members per year.

Of the 38 deaths this year the youngest and strongest was Dr. A. A. Morrison, of Savannah, who died of a coronary occlusion at 38 years. Dr. W. H. Rose, of Wrightsville, died suddenly at 48. Then there were 9 deaths in the fifties with an average age of 54.8 years; 13 in the sixties with an average age of 65 years; 9 in the seventies with an average age of 75 years, and only 3 in the eighties with an average age of 83.3 years. As a rule, deaths before 50 are infrequent; then the toll begins in earnest in the fifties, swings highest in the sixties, slips a little in the seventies, and drops low in the eighties. Few indeed reach the nineties. Aviators and railway engineers precede us in shortness of life. Even a doctor in the eighties is rare. The toll is heavy, the service is personal, the wages and hours irregular, the life is responsive and responsible, there are no pensions and nature takes her toll in proportion to these influences plus those of heredity and habit.

The causes of death among us are interesting. As a profession, half or more than half of our deaths are due to diseases of the circulation, with coronary occlusion, angina pectoris, coronary artery atheroma, myocardial failure, hypertension, arteriosclerosis and cerebral hemorrhage far in the lead. Pneumonia is the chief acute infectious disease. Singly and perhaps collectively, cancer, diabetes and tuberculosis take relatively low rank as compared to coronary occlusion, which seems to be decidedly on the increase. Violence both of self and of the automobile takes a respectable place. The frequency of circulatory diseases over the others probably finds its explanation in the nervous and mental strain of practice and much toil, eating and smoking, an indoor life and the absence of regular exercise.

In such an hour as this our griefs and memories rise high above the facts and experiences of our art. Each of us may look back to personal associations with many of those we mourn today, or even feel the more tender ties of kin and friend. Time forbids much that one would say above mention of name and home, but several on the list come so distinctly into view that not to praise were a sacrilege, that we may show what pride and dignity we have in their lives.

Thomas Bright Miller, of Richland, in practice 63 years, at death 84 years, graduated at Augusta at 21 years of age — "no medical office, a lover of his profession, charitable to the poor." Pneumonia was his friend.

Richard Smith Bradley, of Dalton, graduated at 27 from Emory, in practice 54 years, and then this summary, "Pioneer, old-fashioned country doctor." A broken hip and congestive failure.

Warren J. Hall, of Oakfield, from Emory at 31 years, in practice 53 years in Worth County. Honored and mourned by his community.

Three I would group together who possessed the manners, courtesies and character of those we call "the gentlemen of the old South":

John A. Rhodes, of Crawfordville, aged 75, led a generous life giving freely of self and substance. Hat and cane in hand, his entrance anywhere was a benediction.

Robert Alexander Simpson, of Washington, aged 79. Washington, Wilkes county, his love and practice. All the advantages of America and Europe were his. A relative of Alexander Stephens, culture and courtesy were his ways. He could be a bachelor, cook a cake, crochet a lace, entertain a guest, treat a patient, comfort the grieving, all with modesty and equal ease. We shall not see his like again.

James Ralston Lattimore, of Savannah, aged 67, who left unconsciously the blessing of his character and personality on all he touched. He was gracious indeed and to me an unusual man. Our President in 1913, the father of the Vital Statistics Law of Georgia, a Vestryman at St. Johns, active, stimulating and sweet were the ways of his life. I am grateful for his influence and for the vision of the deeper springs of his being. Here was a man superb in culture, poise and serenity.

Victor Hugo Bassett, another citizen of Savannah, was truly a Son of Science. A Hopkins graduate at 32, he died at 67, and gave 30 years of a toiling life in service to the City by the Sea. As bacteriologist, pathologist, commissioner of health, medical historian, he was probably the leading public figure in medicine in the Southeast. He was the first of four who went quickly in his department.

James William Roberts, of Atlanta, aged 52. Twice graduated from Emory, in love with the art of surgery, his friends and all life, in honor preferring his friends and patients. With a deep grasping and advancing cancer of both lungs, he rode in a new car, carried on with life, kept his secret and his danger even from his wife until he sank in the weakness wrought by his disease, but still serene and unafraid. This takes courage of a kind supreme. All great deaths are not on the battlefield.

Harris Miller Branham, of Brunswick, aged 76. Health officer, practitioner and discoverer of Branham's sign in arterio-venous aneurysm. Here was a fisherman and a friend, a member of the famous Branham family, genial and kind and with a whimsical friendship that always held one close. To know him was to love him.

George Campbell Mizell, of Atlanta, at 62, from arteriosclerosis. Wise, patient and competent Mizell. We liked him in his life and miss him from the ranks. He was a real student of disease of the digestive system.

There were seven known deaths from coronary occlusion. There were probably more. The youngest man was Morrison of Savannah, already mentioned. Then Edward H. Egbert of Saint Simon's Island at 57. "A beloved physician who went about doing good and healing." He had a delightful humor, a wide experience, was a good clinician, and friendly beyond degree.

John M. C. McAllister, of Rochelle, at 59. In practice 36 years. A strong soul of marked ability, a tower of strength, a Mason, a Methodist and a man.

Benjamin Victor Wilson, aged 62, of Decatur. A gentleman, a good doctor, and a good friend.

Gustav Hugo Johnson, aged 66, of Savannah, in practice 40 years, long coroner of Chatham county. The doctor's artery was diseased, a branch closed and in an instant he was gone.

William Andrew Webb, of Lithonia, aged 63. He led a busy life, giving and going in all directions and how quickly he slipped away.

Ivey W. Moorman, Douglas, aged 70 years, in practice 41 years, known as "the obstetrician of Coffee county." He died in the clinical harness as he wished to go. He gradu-

ated in August, 1897, and lived a noble life.

Robert Bayard Lamb, aged 58, graduated from Emory at 27, in practice 32 years at Demorest. Sometimes a whole community may be swallowed up in the services and character of a single man. It was true here—as clinician, churchman, trustee of Piedmont College and at various times he held all the offices in his county medical society. He was a great soul serving his day and generation. Pneumonia was his outswing to a high place in another world.

Robert Lee Tyre, McDonough, aged 74. Of a noble family and intellect he chose wisely to remain a general practitioner and for a lifetime served well the people of Henry county. He was drowned returning from a professional call.

William Thomas Asher, of Atlanta, aged 68, of cerebral thromboses. A faithful and loyal man who had attended some families as long as 46 years. He wore well.

Ira Willis Ballard, of Forest Park, aged 54, who served a large circle. Still another victim of pneumonia.

Richard Randolph Daly, of Atlanta, aged 72. A man of ability and a long time the faithful secretary of the Fulton County Medical Society.

Among others whom we have lost are:

Charles L. Baskin, of Bremen, aged 69.

Joseph R. Brown, of Lavonia, aged 68.

William Wallace Cornog, of Lavonia, aged 73. A fine war service.

J. A. S. Chambers, of Inman, aged 79.

Thomas D. Fussell, of Rhine, aged 57.

Benjamin Harrison Gibson, of Allenhurst, aged 52.

James D. Middlebrooks, of Powder Springs, aged 77.

Jesse Moody Oliver, of Hazelhurst, aged 51.

David Wells Register, of Atlanta, aged 52.

Benjamin Kelley Simmons, of Blakely, aged 68.

Walter C. Sims, of Richland, aged 66. An able and progressive man.

Andrew Fletcher Weathers, of Shellman, aged 68. Dear, warm-hearted, cheerful Weathers.

Charles Hugh Wilcox, of Fitzgerald, aged 63, and Samuel M. Withers, of Moultrie, aged 62—both stalwarts, invaluable and



missed and mourned before their time.

Irby Hammond Adams, of Macon, aged 58, a general practitioner of ability and a leader in the Presbyterian church.

Lastly, Paul Eugene Lineback, aged 59. Professor of Embryology and Micro-Anatomy in the Emory University School of Medicine for 23 years. A scholar, a teacher and a research student of real ability.

We may well imagine the human embryo to have a sure basis for a protoplasmic faith in the wizardry of its development into the foetus, and the foetus a faith in its growth to the full-term child, and the child a faith in the skill of the physician and the care of the mother, even though it be very helpless and with no language but a cry. Each of us in our maturity may have a great spiritual faith in the Great Adventure, even though it bring the earthly and, the apneic rest, the stillness, the dust thou art to dust returneth that was not spoken of the soul. We go as our patients go. The mettle of the Men of Medicine is always being tried. Perhaps it is better so. But I am glad that over there is no more pain nor grief nor struggle nor shift of plan and scheme, but only rest and peace and a serene happiness. Over there countless billions mourn no more and the ways and relations of the spiritual life have their perfect day. We shall have given up the flesh and its feebleness for the spirit and its strength.

#### MANY CLAIMS FOR TESTOSTERONE ARE SAID TO BE EXAGGERATED

Many of the claims made for the action of the male sex hormone, testosterone, which have appeared in professional and lay publications in recent months are extravagant and have been grossly exaggerated, the Council on Pharmacy and Chemistry of the American Medical Association reports in *The Journal of the Association* for May 13.

"The naturally popular appeal of this substance has aroused wide interest with the aid of ample newspaper publicity," the report states. "It may eventually prove that this substance, testosterone, or its esters will be a valuable addition to our armamentarium of glandular treatment; but it is the Council's belief that many claims for it have been grossly exaggerated. The male hormone has only recently been made available for clinical use and there have already been widespread announcements of its remarkable effects, both physical and psychic, which are a long way from actually being established.

"According to our present knowledge, testosterone propionate shows promise in only a few conditions. Many claims are either exaggerated or immature and should be disregarded until substantial evidence becomes available on which to evaluate them."

#### BROMIDE RASH RESEMBLING SYPHILIS IN A PATIENT WITH POSITIVE WASSERMANN REACTION

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LAWRENCE GEESLING, M.D.‡  
Augusta

Modern physicians are known to base a great part of their diagnostic statements upon laboratory findings. No one would doubt that such a procedure has been adopted with good reason, and there are many instances in which the clinical appearance (or the lack of clinical manifestations) has to give way to the laboratory report. This is especially true of syphilis. Nevertheless, we should not forget that the laboratory, too, may support, or even initiate an erroneous train of thought. Indeed, the positive accuracy of a test must never induce us to depend only upon its reliability, since sometimes a true result may mislead us. The case here reported is an impressive example that, in spite of modern laboratory facilities, we unyieldingly have to defend the liberty of our clinical consideration.

J. R. P., white female, 33 years old. First admission was on Jan. 20, 1939, because of severe genital bleeding. In the emergency room the patient was lying in a pool of blood. On the perineum was a granulating second degree laceration. History was fragmentary and disconnected except for a "miscarriage" three months before accompanied by considerable bleeding, and for recent attacks of chills. Temp. 101.8 F.; R.B.C. 3,500,000; W.B.C. 11,200; Hemoglobin 11.9 grams; Wassermann and Kahn reactions were 4 plus. After four days of hospital rest, bleeding had stopped, the temperature was normal, and the patient was discharged with instructions to come to the clinic, especially for antisypilitic treatment.

Second admission was on Feb. 21, 1939, because she had fainted when, for some reason, she had been brought to the jail. In the emergency room the patient was mentally confused and somnolent. The lacerated wound of the perineum was still present. Temp. 101 F. On the trunk, the extremities, and the face were papular, pustular, partly ulcerative predominately circular lesions of a rash of irregular distribution. (Figs. 1 and 2.) No general nor local lymphadenopathy. The first impression was that the rash was syphilitic. The question of a septic rash was discussed considering the fever, the lacerated wound, and the general impression of severe illness, of somnolence, and the marked hyperaesthesia in different areas. This possibility, however, was abandoned because the character of the lesions, es-

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pecially of the larger ones, was different from that type. The diagnosis of syphilis, which was suggested by the immediate clinical impression, seemed supported by the positive Wassermann. Although it was difficult to obtain information, owing to the patient's somnolence, she admitted the possibility of a venereal infection shortly prior to the occurrence of the lacerated wound. This fact, too, was interpreted in favor of the diagnosis of syphilis. Serum from one of the skin lesions was obtained, and Neoarsphenamine 0.3 Gm. was given. The darkfield examination of this serum was negative for spirochetes but this fact was not reported until the following day.

Nevertheless, on Feb. 22, we did not feel perfectly satisfied with the diagnosis of syphilis. For all its resemblance the rash did not agree exactly with this disease. Only some of the papules had all the characteristics of syphilis; others had too much of a pink hue in them. Also the entire rash did not fit any defined stage of syphilis. The severe pustulation of some of the lesions and the seborrheic character of others, delegated the rash to the second stage of syphilis. The scarce distribution suggested the third stage. In this case the history of a venereal infection "a few months ago" did not help the situation. As six weeks ago no signs of a rash were found, the development of granulations and ulcerations seemed rather quick for tertiary syphilis. Therefore, because of the distinct tendency to soft granulation and, in some of the older lesions, to sluggish necrosis, we thought of bromoderma, to which diagnosis all details and the general impression seemed to fit very well. The patient, whose other statements were vague and slurred by somnolence, clearly denied having taken any drugs. However, the clinical picture was so convincing of bromism, that this diagnosis was retained despite the positive Wassermann and the first clinical impression. A visit in the apartment of the patient revealed the presence of "B.C. Tablets" which fact coincided with the report of the blood bromide level at 300 mg. per cent. Finally the report of the darkfield examination was negative, blood cultures were sterile, and the leukocytes were only 10,500 with 78 per cent P.M.N.

In the afternoon of Feb. 22, the patient was placed on a regime of high salt ingestion.

The next day the patient felt much better and her somnolence was greatly diminished.

On Feb. 24, the skin lesions were clearing rapidly.

On Feb. 25 blood bromide was 200 mg. per cent and the temperature was normal.

On Feb. 27 blood bromide was 126 mg. per cent. The rash was strikingly improved. The patient admitted having taken two to four packages of "B.C. Tablets" daily, for rheumatic pain. She also had eaten very little.

On March 4 the blood bromide was 100 mg. per cent. Patient felt perfectly well, the rash was healed with comparatively slight scarring of the ulcerated lesions. On the abdomen marked pigmentation remained. The patient was dismissed and instructed to report to the clinic for antisypilitic treatment and to continue local treatment of the perineal wound. Wassermann and Kahn tests this day were still 4 plus.

### Comment

It is often thought (and sometimes openly stated) by physicians that a thorough training in dermatology is not indispensable for the practice of syphilology, for the serologic result may bring about the decision in all doubtful cases. Our case demonstrates the weakness of such a viewpoint. The positive result of the serologic tests was right in itself, but without the clinical criticism, it would have led us to the wrong conclusion, that the rash in question was of syphilitic origin. It is true that the diagnosis of the bromide rash, too, was ascertained with a laboratory method, i.e., the chemical investigation. In contrast, however, to the Wassermann, the bromide test was performed only because the clinical impression of bromoderma prompted us to do so. The institution of an extended



laboratory routine examination may prevent us from omitting an important clue in the organism's pathologic make-up. But a routine examination cannot cover each potential possibility. The more we feel sure in thinking that everything is complete by such a process, the more likely the deciding feature may slip through the most reliable laboratory net. Only a thorough clinical consideration may avert, to some extent, such a possibility.

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### GOITER CONFERENCE\*

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D. HENRY POER, M.D.

*Atlanta*

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#### *Endemic Goiter*

Theo Lange (Munich), gave results of experiments with regard to radio activity as the cause of endemic goiter and cretinism. M. B. Gordon (Brooklyn), discussed 340 cases of childhood myxedema and differential diagnosis from cretinism. Latter not seen in United States. Thyroid extract of value in treatment. Adolph Renold (Zurich), reported clinical observation of 15,000 cases of endemic goiter and cretinism. O. P. Kimball (Cleveland), discussed prophylaxis of goiter in America, particularly his work with Marine in Akron. Gave 2 Gm. iodine for two weeks, twice a year and decreased incidence to 5 in 10,000. Found no increase following use of iodized salt; 4 per cent made toxic at first but soon dropped to 0 per cent. Found goiter to be inversely proportional to amount of iodine in water and vegetables. H. Eggenberger, H. H. Stacpoole and S. Tabiasz, presented results of study of endemic goiter in Switzerland, Mexico, and Poland. Found intelligence of school children to be higher in non-goitrous, and iodized salt decreased incidence of endemic goiter.

#### *Laboratory Investigation*

G. M. Curtis (Columbus), gave results of iodine metabolism in thyroid disease. Studied I Balance in 15 patients (normal, nodular and exophthalmic goiter). Found disturbances in I metabolism similar to calcium disturbances in parathyroid disease.

J. F. McClendon, Ph.D. (Minneapolis), found largest amounts of blood iodine in pa-

tients with lowest B.M.R. Amount of I decreased as B.M.R. increased. These findings are directly the reverse of those of Perkin, Curtis, and others. Perhaps due to method used.

#### *Experimental Investigation*

R. G. Haskins (Harvard), discussed endocrinology in relation to modern medicine. Very general information. J. B. Collip (McGill), presented results of studies of relationship of the pituitary gland to metabolism. Found 30 per cent increased in B.M.R. in 4 hours following injection of extract of pars intermedia. This also neutralized effect of insulin and adrenalin. W. O. Thompson (U. of Chicago), presented studies of influence of pituitary in thyroid diseases. Effects of extract of pars intermedia: (1) increased B.M.R., (2) neutralized insulin, (3) and adrenalin, (4) carbohydrate and protein metabolism decreased. Produced hyperthyroidism in many by injection of anterior pituitary extract. Described primary (lack of thyroid tissue) and secondary hypothyroidism (lack of stimulation of pituitary).

E. Uhlenhuth (Johns Hopkins), J. B. Wolfe (U. of Pa.), R. C. Moehlig (Detroit), A. Shapiro (Brooklyn), P. Starr (Chicago), and M. P. Schultz (Washington), presented studies of experimental work in various phases of thyroid conditions.

#### *Clinical Investigation*

W. F. Rienhoff, Jr. (Baltimore), treated 6 cases of goiter in children with thyroid extract which caused the goiter to disappear. He treated 20 cases of diffuse non-toxic goiter and 20 cases of nodular non-toxic goiter in the same manner with good results. Biopsy examinations confirmed the results.

David Marine (New York) studied exophthalmos in relation to the fundamental nature of Graves' disease. Percentage has decreased 30 per cent in last 15 years. Thyroid insufficiency plus over-secretion of anterior pituitary necessary for production. Male hormone also involved; castration cured exophthalmos in animal.

#### *Thyroiditis*

A. S. McQuillian (New York) discussed acute and chronic thyroiditis. F. L. Fernandez (Havana) presented three case reports of Riedel's struma, and J. A. Lehman (Phila-

\*Report on International Goiter Conference held in Washington, D. C., September 12-14, 1939.



delpia) presented 6 cases of Hashimoto's struma lymphomatosa. All considered the two conditions to be separate and distinct clinical entities and advocated operation if local symptoms are present or if diagnosis is doubtful. Less myxedema produced if only partial removal is done.

#### *Carcinoma*

R. Ward (San Francisco) presented the classification of 84 cases with results; 80 per cent died if diagnosis was made before operation, 45 per cent during operation, and 20 per cent if made after operation. Prognosis was better in young individuals as the grade was lower, could stand more x-ray therapy, and had fewer concomitant diseases. Prognosis bad if neutrophils were seen in microscopic section of gland. Twenty-four per cent of his patients were living at end of 7 years. H. Welti (Paris) presented reports of 88 cases; 24 were operated upon. One-third had history of goiter and 2 were pregnant. Biopsy not considered safe. Advocated bloc dissection. U. V. Portman (Cleveland) gave the results of x-ray therapy in 200 cases of malignancy of the thyroid. Two-thirds of these cases were far advanced. Twenty per cent were living at the end of 5 years. J. D. Pemberton (Rochester) gave results in Mayo Clinic series of 774 cases. Carcinoma was not suspected in 60 per cent of the cases and only 50 per cent were operable. Mortality 1.87 per cent. Four patients were children under the age of 10.

#### *Hyperthyroidism*

H. Welti (Paris) discussed hyperthyroidism as seen in children and reported 60 cases. M. Davison (Chicago) stressed the fallacy of use of iodine following subtotal removal of the thyroid. M. N. Fulton (Boston) differentiated recurrent and persistent thyrotoxicosis and was unable to determine before operation just what particular patient was likely to develop either complication. However, R. B. Cattell (Boston) thinks he can spot them by careful blood iodine determination: if persistently low then persistence of recurrence is likely, so does very radical resection of gland. A. M. Smith (Minneapolis) gave results of x-ray therapy of hyperthyroid conditions. Gives Lugol's solution and luminal along with therapy. Gives three courses with average drop in B.M.R. of 34 per cent.

No deaths or crises. J. H. Means (Boston) discussed the medical treatment of hyperthyroidism stating this is of value only in preparation for operation. Considers response to iodine of differential diagnostic value as well as for treatment. Stressed value of glucose in regard to improved liver function. Uses digitalis only for evident cardiac insufficiency. Discussed the relation of thyroid conditions to lack of vitamins as did W. D. Frazier and M. G. Wohl (Philadelphia). Night blindness noted in hyperthyroidism which was cured with vitamin A, but this did not cure any other symptoms. Vitamin B<sub>1</sub> deficiency also discovered which can be quickly relieved. F. G. Mozo (Bogota, Columbia) used insulin to aid in fattening patients markedly underweight and H. J. John (Cleveland) stressed importance of carbohydrate metabolism in hyperthyroidism. J. L. McCartney (Philadelphia) discussed the psychogenic factor in the etiology of hyperthyroidism. Found fear and anxiety causes over-stimulation of thyroid where there is failure of adaptation and neurotic temperament. Cited fact that exophthalmic goiter is common in all sections of the United States. These patients are not cured unless these factors are recognized and treated. J. W. Hendrick (Amarillo) presented 47 cases of hyperthyroidism with persistently low B.M.R. and S. F. Haines (Rochester) presented the ideas first elaborated by Plummer in regard to adenomatous goiter with hyperthyroidism. States that such does not recur and may follow definite hypothyroidism. Surgery in hyperthyroidism was discussed by F. H. Lahey (Boston) who gave routine followed in his clinic. Stressed value of adequate exposure of parathyroid bodies and recurrent laryngeal nerves. Uses cyclopropane as ideal anesthetic. Cited lower mortality with increased use of multiple stage operations. Gave experiences with dihydrotachysterol in treatment of tetany. W. H. Cole (Chicago) studied laryngeal spasm and tracheal collapse as produced in animals and encountered in operations; found that manipulation of thyroid causes stimulation of adductor muscles of larynx which causes spasm, but trachea does not actually collapse. Recommends stopping operation, removing pressure, and passage of tracheal catheter to relieve symptoms.

## THE PRESIDENT'S PAGE

## THANKSGIVING

The Pilgrims who landed at Plymouth Rock in 1620 were strong in faith and brave of heart. Their new home was in a bleak wilderness, where dangers were many and real. Therefore, it was only natural for them to rejoice and offer up thanks to God for their preservation and bounteous harvests. The custom of setting aside a day of thanksgiving was established by them and observed at the end of each harvest season. There was no set date for this celebration until the presidency of Abraham Lincoln who, by proclamation and precedent, made the last Thursday in November a day of thanksgiving for the nation. It is regrettable that this satisfactory date has recently been changed in some parts of the country.

We are now nearing this day of Thanksgiving, a day which should be observed as a fitting prelude to that universal Christian holiday in December. But this day is not always observed in the spirit intended by those who initiated its observance. This is due mainly to the fact that the day's significance is lost on the hotly contested football fields on the one hand, and general world-wide unrest on the other. We have no quarrel with those who think only of football on this day, for it is an exciting and fascinating sport without which many of the cherished memories of college life would be lost. There are those who feel that so much unrest exists in our own country and that a war is on the eve of spreading desolation over the rest of the world, and may actually invade our fair land. But they must not lose sight of the fact that we are still in the land of plenty, and barring our own bungling efforts at creating laws for our protection and the administration of justice, we are the favored people of the world. We are spared the heavy hand of dictatorship. Liberty and free speech are still our priceless possessions, and the voice of the people is all-powerful, if the rights of citizenship are exercised at the polls.

We, as physicians, have recently passed through an era of attack and villification



unprecedented in its scope and bitterness. This has been unpleasant and discouraging, but we are thankful that the trend is now in the direction of truth and justice and that our detractors find far less favor with the public than they did in the golden era of the New Deal. Two victories won before the courts of the United States, following specious and trumped up charges, have given us cause for renewed faith in our future. Our rights have thus been upheld, and we can again feel that we constitute an honorable profession and are not a union of laborers.

We, in common with other citizens, are thankful for all of the blessings guaranteed by our Constitution, and devoutly hope that we shall be spared the agony of warfare.

We must not, in recounting our blessings, forget our Woman's Auxiliary, for it is to this band of self-effacing, devoted women, who do so much for the advancement of public health, that we owe so great a debt of gratitude. May they continue their tireless efforts.

We should recount our blessings and balance them against our misfortunes, and in the thankful words of an inspired song:

"We thank Thee, then, O Father,  
For all things bright and good,  
The seed-time and the harvest,  
Our life, our health, our food;  
Accept the gifts we offer,  
For all Thy love imparts,  
And, what Thou most desirest  
Our humble, thankful hearts."

WM. H. MYERS, M.D.

# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

NOVEMBER, 1939

## DIAPHRAGMATIC HERNIA

One of the axioms of the late Dr. R. T. Dorsey was: "If you don't think of a thing you won't look for it; if you don't look for it you won't find it." Such a statement usually is true, although correct diagnoses often are made inadvertently. The diagnosis of diaphragmatic hernia before the advent of roentgenology was an event of rare occurrence. In 1912 Giffin<sup>1</sup> collected 650 cases of which only 15 were recognized before operation or autopsy. Today the x-ray has made it possible to diagnose practically every case. The suggestion arises that even this valuable agent may fail to demonstrate when the stomach slips into the chest and out again unless the patient is x-rayed in the exaggerated Trendelenberg position. The lesion received unusual publicity a few years ago, especially in the lay press, when it was described as the "upside-down stomach." On account of its position the stomach is involved in the hernia more frequently than any other organ, although at various times the hernial sac has been found to contain every viscus in the abdomen except those in the pelvis. Sometimes a sac is absent. Such cases are referred to as false diaphragmatic hernias, but the symptoms in both instances are practically the same.

While the condition is rare compared with other lesions in this region, in seeking the cause of ill-defined symptoms in the upper chest and abdomen the possibility of hernia of the diaphragm always must be borne in mind. As usually happens in studying so-called rare diseases, it will be found that this hernia is more common than it is supposed to be. Many cases are unrecognized, and many go unreported. The symptoms may give the impression of cholecystitis, peptic ulcer, cardiac disease, esophageal obstruction, or other pathologic entities. There may be epigastric distress

projected through the back, particularly after a heavy meal. Belching and vomiting, attributed to gallbladder disease, may bring relief. The stomach may become incarcerated, causing agonizing pain, simulating coronary occlusion. Palpitation, tachycardia and dyspnea are other thoracic symptoms. Hemorrhage is not common, and indicates fixation of the stomach with erosion or ulceration of the mucous membrane resulting from forced vomiting. Gurgling, splashing, or rumbling sounds in the chest, dysphagia, respiratory delay, cyanosis, secondary anemia with atypical physical signs at the base of the left chest, should arouse clinical suspicions.

Three classifications are given: *congenital*, *acquired* and *traumatic*, the incidence of the three being about the same. The *congenital* type indicates that the hernia opening is due to the failure of development or failure of fusion of one or more anlage of the muscle. The *acquired* variety takes place after birth through a congenitally weak area such as the esophageal opening or at the parasternal of the lumbo-costal trigone. *Trauma* from many causes may produce hernia, the commonest being gunshot and stab wounds and tearing or bursting of the diaphragm from sudden violent abdominal or thoracic compression, as from a fall, blow or crushing impact.

Complications, with or without operation, are responsible for fatal terminations, the most frequent being acute intestinal obstruction and acute respiratory failure. Obstruction of the cardiac or pyloric opening, with strangulation and perforation of the stomach, has often been observed. The chief postoperative complications are shock, peritonitis and empyema; pericarditis or mediastinitis may develop. The transverse colon is more frequently strangulated than any other portion of the intestinal canal. Acute respiratory failure is the usual cause of death in infants with congenital hernia. The operative mortality rate is three times lower before obstruction than after obstruction has taken place.

Surgery offers the only means of cure in diaphragmatic hernia. Without opera-



tion or without death from complications the patient may be reduced to a living skeleton from inability to swallow food or from persistent vomiting. Enterostomy may save a life in acute obstruction. Preliminary paralysis of the phrenic nerve will facilitate closure of a large hernia opening centrally or peripherally situated. Preliminary thoracoplasty is indicated if clinical study or exploratory operation has disclosed an opening too large for direct or plastic closure.

The diaphragm may be approached through the abdomen or through the chest, or both cavities may be opened by separate incisions or by a combined incision. The advantages of laparotomy are the better facilities it offers for reducing a hernia without adhesions, and for dealing with obstruction, ulceration, hemorrhage and other lesions of the abdominal organs. Thoracotomy gives better exposure, but may lead to pneumothorax and pleural effusion. A positive pressure anesthesia must be used in thoracotomy, and also is valuable after laparotomy for inflating the lung. After reducing the hernia closure is best done with silk or linen sutures. If possible the edges should be overlapped, but tension must be avoided; difficult advice to follow in a large hernia. Suturing the stomach or any other organ into the hernia ring, in order to close it, is a makeshift procedure of no avail. The general death-rate following laparotomy or thoracotomy is the same, 20 per cent.

Hernia of the diaphragm is an interesting, serious affair, and the possibility of its presence should not be overlooked by the practitioner and surgeon. The expert employment of modern equipment should lead to diagnosis in every case.

FRANK K. BOLAND, M.D.

#### REFERENCE

1. H. Z. Giffin: *Annals of Surgery*, 55: 388, 1912.

## THE SOUTHEASTERN SURGICAL CONGRESS

It has been said that there are too many medical organizations in this country and that we are getting away from the basic unit of organized medicine: the county medical society with its diversified program, which not only deals with scientific medicine but community health planning as well. But occasionally some new medical organization develops which augments the functions of county medical societies and state medical associations. Such an organization is The Southeastern Surgical Congress.

Born in the minds of a few Atlanta surgeons more than a decade ago, the Congress has now more than six hundred fellows in eleven Southeastern States. Unlike many of the specialty organizations, its membership is not limited. To become a fellow, one must be a member of his county, state and national medical organizations and fulfill other requirements, which include limiting the greater part of his practice to surgery.

The Congress has held its annual session in the principal cities of the Southeast. Its programs have been excellent from the beginning, the essayists being in most instances men of national prominence. Scientific and technical exhibits have been in keeping with the best medical conventions. Attendance has been good in each of the cities where the Congress has met, and each new session has brought increased interest in all surgical problems. The next session will be held in Birmingham, Ala., March 11-13, 1940.

During recent years the Congress has amplified its educational program by having many of its state organizations hold sectional clinical meetings. The purpose of these meetings has been to carry to the general practitioners in the various sections of the states new knowledge concerning surgery. The Georgia Section of the Congress has just concluded two such meetings—one at Toccoa and another at Rome—to which all practitioners of medicine of those communities were invited. Similar meetings have been planned for next year. Surely these fill a definite need and will bring together for discussion many men who otherwise would be deprived of much of the newer knowledge of surgery.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

**WOMAN'S AUXILIARY : OFFICERS 1939-1940**

President—Mrs. Eustace A. Allen, 18 Collier Road, N. W., Atlanta.

President-elect—Mrs. H. G. Banister, Ila.

First Vice-President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

Second Vice-President—Mrs. C. H. Richardson, Milledgeville.

Third Vice-President—Mrs. Loren Gary, Jr., Shellman.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Recording Secretary—Mrs. Cleveland Thompson, Millen.

Corresponding Secretary—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

Treasurer—Mrs. R. A. Woodbury, Jr., 1232 Belmont Drive, Augusta.

Historian—Mrs. J. L. Nevil, Metter.

Parliamentarian—Mrs. L. W. Williams, 135 East 45th Street, Savannah.

**ORGANIZATION**

Mrs. H. G. Banister, of Ila, president-elect of the Woman's Auxiliary to the Medical Association of Georgia and chairman of organization, has written the following very informative article on organization.

Watchword for the Year 1939-1940: "Organized Intelligence." — Dr. Arthur T. McCormack.

"We are on the threshold of another year's work which means opportunity for loyal co-operation, closer alignment of both individual doctor's wives and county organizations to state and national organizations. So far no better plans for the wives of doctors for service to the medical profession has been found than through organization of the Woman's Auxiliary. We need not only increase in eligible membership, but organized intelligence concerning the problems of our organization.

"In order for any organization to survive there should be individual responsibility sensitized concerning all activities of the organization. Your chairman of Organization extends to every eligible doctor's wife an invitation to join the Woman's Auxiliary so that you may have the privilege of serving the medical profession through organized Woman's Auxiliary activities. Let us remember that our Woman's Auxiliary to the Medical Association of Georgia is as strong and effective as the County Auxiliaries, who in turn are dependent upon alert and wide awake membership as a foundation.

"The organization work for the past year showed growth in membership and organized county units under the able leadership of Mrs. Eustace A. Allen, president-elect for 1938-39. I wish to express appreciation for such able leadership. Her efforts will continue to manifest growth both in membership and county organization for the coming year. In order for our course in organization to be followed by every member we must have in mind some definite objective.

1—To know each other better—know the objectives of the following:

- a. Officers
- b. Standing Committees

c. Study Constitution and By-Laws of our organization.

2—Membership goal for year, 650—Ultimate goal every eligible member.

3—Increase in county organization, thus increasing our membership over last year's record of 26 county organizations membership 549.

4—Individual members familiar with their surrounding fields as to county organizations, also membership of current year in comparison with previous year of the eligible members.

5—Plan worthwhile programs so as to promote better attendance, sustain interest and encourage new membership.

6—Retain old members as well as enlistment of new members.

"Our organization has a very great responsibility not only to extend the aims of the medical profession to all organizations which look to the advancement of health; but a responsibility within our own group, to be a wide awake functioning organization, alert to know the scope of our program. We should feel a responsibility for service wherever our organization can function and to be an active and effective member in every sense of the word. To do our part conscientiously and with loyalty to the medical profession which we serve, whose destination is the preservation and improvement of American medicine. The life of an Auxiliary member can be expressed with four verbs: To know; To feel; To be; To do.

"The success of this year's work is dependent upon each member in our organization. As Chairman of Organization I want each president of county organizations to stress individual responsibility and organized intelligence concerning the problems of our organization.

"I take this opportunity to wish you success for the coming year's work and offer my services to you in any way that I may be able to serve you."

**Ninth District**

An excellent attendance featured the meeting of the Woman's Auxiliary to the Ninth District Medical Society, which was held recently in Cumming at the home of Dr. and



Mrs. Marcus Mashburn. Mrs. Alex Russell, of Winder, district manager, presided and Mrs. Ralph Freeman, secretary, read the minutes. Mrs. E. R. Harris, of Winder, gave the devotional, after which Mrs. Mashburn welcomed the visitors, and Mrs. C. J. Roper, of Jasper, responded.

Mrs. Eustace A. Allen, of Atlanta, state president, discussed the Auxiliary program for the year and Mrs. H. G. Banister, of Ila, president-elect, gave an address on organization. Miss Fannie B. Shaw, of Atlanta, director of health for the State Board of Health, presented an instructive health talk, followed by Dr. S. Ross Brown, of the State Board of Health, who showed an interesting health film. The guests were entertained at luncheon following the meeting.

#### *Fifth District*

The semi-annual meeting of the Woman's Auxiliary to the Fifth District Medical Society was held on October 5 at the Academy of Medicine in Atlanta. The meeting followed a delightful dinner, at which members of the Auxiliary and Society were entertained. Mrs. Forrest M. Barfield, president of the Woman's Auxiliary to the Fulton County Medical Society, and Mrs. Edgar H. Greene, wife of the president of the society, presided at the beautifully appointed coffee table.

Mrs. George Williams, of Atlanta, president of the district Auxiliary, presided and Mrs. E. Y. Walker, Jr., secretary, gave her report. Mrs. Eustace Allen, of Atlanta, state president, welcomed the guests. Dr. George H. Semken, of New York City, gave an excellent talk on "Women's Interest in Cancer," and Dr. William H. Myers, of Savannah, president of the Medical Association of Georgia, instructively discussed, "Solving the Cancer Problem." Mrs. H. G. Banister, of Ila, president-elect of the State Auxiliary, gave members interesting suggestions on "Organization." Mrs. Ralph Chaney, of Augusta, and Mrs. Ernest R. Harris, of Winder, two former presidents of the state group, and Mrs. Alex Russell, of Winder, were welcomed as visitors.

Following the meeting, Dr. and Mrs. Olin S. Cofer entertained the members of the Auxiliary and the Society at open house in their home on Lullwater road.

#### *Ware County*

The Woman's Auxiliary to the Ware County Medical Society met recently with Mrs. Leo Smith, Mrs. J. E. Penland and Mrs. W. D. Mixson, joint hostesses, at Mrs. Smith's home in Waycross. Sixteen members and one guest, Mrs. Meucke, were present. Plans were made for the year's work and the following committees appointed:

Legislation, Mrs. C. M. Stephens; press and publicity, Mrs. K. McCullough; exhibits and scrapbook, Mrs. L. W. Pierce and Mrs.

H. A. Seaman; Doctor's Day, Mrs. Louis Oden and Mrs. W. C. Hafford; historian and Research in Romance of Medicine, Mrs. J. L. Walker and Mrs. W. M. Folks; program, Mrs. K. C. Walden and Mrs. T. J. Ferrell; health, Mrs. B. H. Minchew and Mrs. W. L. Pomeroy. Luncheon was served after the meeting.

#### *Fulton County*

The Woman's Auxiliary to the Fulton County Medical Society held its October meeting at the Academy of Medicine on Prescott street in Atlanta. Mrs. Forrest M. Barfield, president, presided. Dr. Jack Norris gave an instructive talk on "Milk in Relation to Health" and Mrs. W. M. Dunn presented interesting highlights from *Hygeia*, the national health magazine, when she spoke on "Daughter of Aesculapius." Mrs. Walter Jernigan, secretary, and Mrs. S. Ross Brown, treasurer, gave their reports. Mrs. H. G. Banister, of Ila, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, and Mrs. Ralph Chaney, of Augusta, past president, were introduced. After the business session, a delightful luncheon was served with Mrs. Dewey Nabors, chairman and Mrs. A. O. Linch, co-chairman.

#### *Randolph County*

The Woman's Auxiliary to the Randolph County Medical Society met on October 5 with Mrs. W. W. Crook at her home in Cuthbert. Mrs. Loren Gary, Jr., the president, presided. During the business session, programs for the year were submitted and approved. Plans for showing health films to the school children of the county were discussed. Later a social hour was enjoyed.

#### *Richmond County*

Dr. Philip A. Mulherin, chairman of the advisory committee, spoke to the members of the Woman's Auxiliary to the Richmond County Medical Society at the recent meeting of the Auxiliary, which was held at the George Walton in Augusta. After the luncheon, plans were discussed for the annual benefit bridge party which the Auxiliary set for October 25.

#### *Eighth District*

The Woman's Auxiliary to the Eighth District Medical Society met at the Daniel Ashley Hotel in Valdosta on October 10. Mrs. Louis Smith, of Lakeland, district manager, presided. The following officers were unanimously elected: Mrs. Louis Smith, manager; Mrs. A. M. Johnson, of Valdosta, vice-manager; Mrs. Joseph Gay, of Homer, secretary, and Mrs. Sage Harper, of Ambrose, treasurer.

Mrs. Eustace A. Allen, of Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia, spoke on plans for the year's work, urged the organization of auxiliaries in the unorganized counties in



the district. Mrs. C. M. Stephens, of Waycross, reported on some of the recent medical legislation, mentioned the Basic Science Bill and socialized medicine.

At the conclusion of the meeting, the hostess group served tea and presented the visitors with corsages and complimentary theatre tickets. In the evening the group joined members of the Eighth District Medical Society at a banquet at the Daniel Ashley Hotel.

#### Baldwin County

Three new members, Mrs. Y. A. Little, Mrs. G. K. Cornwell and Mrs. T. C. Clodfelter, were welcomed into the Baldwin County Medical Auxiliary at a meeting held recently at the home of Mrs. Y. H. Yarbrough in Milledgeville. Featuring the meeting was a talk by Dr. J. H. Litton, county health commissioner, who told of the work of his department and pointed out the ways in which doctors and Auxiliary members can cooperate with the department to make it more efficient and of more benefit to the community. The objective for the year, health education, was discussed after which tea was served. Mrs. Yarbrough was assisted in entertaining by Mrs. Mays and Mrs. Sam Anderson.

#### PROGRAM FOR THE 1940 ANNUAL SESSION OF THE ASSOCIATION

Members of the Medical Association of Georgia who wish to read papers before the 1940 annual session are requested to submit titles as early as convenient.

Titles may be submitted to the Secretary-Treasurer or to the Chairman.

JOHN E. WALKER, M.D., *Chairman*,  
Columbus

GLENVILLE GIDDINGS, M.D., Atlanta  
WM. R. DANCY, M.D., Savannah.

EDGAR D. SHANKS, M.D.,  
*Secretary-Treasurer*, Atlanta.

#### NEWS ITEMS

THE MACON MEDICAL SOCIETY OF BIBB COUNTY met in Ridley Hall, Macon, October 17. Dr. Milford Hatcher, Macon, read a paper on the *Treatment of Burns with Skeletal Support in Severe and Extensive Burns of the Lower Extremity*.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on October 10. Dr. Howard J. Morrison read a paper on *Typhus Fever (Rocky Mountain Spotted Fever)*; the discussion was led by Dr. C. C. Hedges and Dr. M. J. Epting. Dr. Jacob Rubin reported a case of *Lobar Pneumonia Complicated by Sick Cell Anemia*. Dr. Fred Rankin showed a moving picture in colors entitled *Abdominoperineal Resection of the Rectum*.

THE SPALDING COUNTY MEDICAL SOCIETY met at the Strickland Memorial Hospital, Griffin, October 3. Dr. L. Minor Blackford, Atlanta, was an invited speaker.

THE JACKSON-BARROW COUNTY MEDICAL SOCIETY met at Jefferson on October 2.

DR. E. C. HERMAN and Dr. J. S. Holder, both of LaGrange, have been elected to fellowship in the American College of Surgeons.

DR. R. L. RHODES, Augusta, was elected president of the Georgia Industrial Surgeons Association at its meeting in Brunswick, October 7; Dr. R. E. Newberry, Atlanta, vice-president; Dr. J. W. Simmons, Brunswick, re-elected secretary-treasurer; Dr. C. F. Holton, Savannah, was elected to the Judicial Council.

THE WOMAN'S AUXILIARY TO THE GEORGIA MEDICAL SOCIETY, Savannah, in cooperation with the Chatham-Savannah Tuberculosis Association, sponsored a symposium on *Tuberculosis*, October 24. Speakers on the program included: Dr. C. C. Hedges, Chatham-Savannah commissioner of health, made the Address of Welcome; Dr. John Daniel, Jr., spoke on *The People's Fight Against the People's Plague*; Dr. A. J. Waring, *First Infection*; Dr. E. T. Upson, *Adult Tuberculosis*; Dr. H. H. McGee, *Benefit of X-Ray*; Dr. F. B. Brown, *Tuberculosis of the Bone*; Dr. J. L. Elliott and Dr. S. C. Lynn, *Collapse Therapy and Pneumothorax*.

DR. J. R. McMICAL, Quitman, has been appointed to the State Board of Health from the Second District for a term of six years to September 1, 1945.

THE SAVANNAH-CHATHAM TUBERCULOSIS ASSOCIATION appointed a committee to extend the work of the Association which included: Dr. R. V. Martin, Dr. C. C. Hedges and Dr. John L. Elliott, all of Savannah.

DR. CLAUDE GRIFFIN, Atlanta, has been elected chairman of the State Board of Medical Examiners, and Dr. Harold P. McDonald, Atlanta, vice-chairman.

MEMBERS OF THE GLYNN COUNTY MEDICAL SOCIETY were entertained at a barbecue at Laurence, St. Simons Island, on October 12. The graduate nurses of Brunswick were guests.

HOSPITALS IN GEORGIA on the approved list of the American College of Surgeons are: ALBANY—Phoebe Putney Memorial Hospital; ALTO—Georgia State Tuberculosis Sanatorium; ATHENS—Athens General Hospital and St. Mary's Hospital; ATLANTA—Steiner Clinic, Grady Hospital, Crawford W. Long Memorial Hospital, Georgia Baptist Hospital, Henrietta Egleston Hospital for Children, Piedmont Hospital, St. Joseph's Infirmary, United States Penitentiary Hospital, Veterans' Administration Facility Hospital, Emory University Hospital, Station Hospital, Fort McPherson; AUGUSTA—Veterans' Administration Hospital, University Hospital, Wilhelms Hospital for Women and Children; COLUMBUS—Columbus City Hospital; CUTHBERT—Patterson Hospital; FORT OGLETHORPE—U. S. A. Station Hospital; GAINESVILLE—Downey Hospital; GRIFFIN—Strickland & Son Memorial Hospital; MACON—Macon Hospital, Middle Georgia Hospital and Oglethorpe Private Infirmary; MILLEDGEVILLE—Baldwin Memorial Hospital; MILLEN—Millen Hospital; ROME—Harbin Hospital and McCall Hospital; SAVANNAH—Central of Georgia Railway Hospital, Charity Hospital, St. Joseph Hospital, United States Marine Hospital, and Warren A. Candler Hospital; THOMASVILLE—John D. Archbold Memorial Hospital;

VALDOSTA—Little, Griffin, Owens, Saunders Hospital; WARM SPRINGS—Georgia Warm Springs Foundation; WAYCROSS—Atlantic Coast Line Hospital and Ware County Hospital.

DR. M. E. WINCHESTER, Brunswick, Glynn County commissioner of Health, spoke on *Special Administrative Problems of the County Health Officer* at a recent meeting of the International Society of Medical Health Officers, held in Pittsburgh, Pa.

DR. C. C. AVEN, Atlanta, former president of the Fulton County Medical Society, has been appointed chairman of the Health Section of the Atlanta Social Planning Council.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on October 24. Dr. J. K. Quattlebaum read a paper entitled *Cancer of the Stomach* and illustrated it with a moving picture in colors. Dr. E. N. Gleaton reported a case of *Sarcoma'tosis in a Baby One Month Old* and presented the patient.

DR. R. B. WILSON, Atlanta, read a paper before a meeting of the Research Club of Emory University School of Medicine on October 18. Dr. R. A. Bartholomew, professor of clinical obstetrics at the school, was elected president.

THE ATLANTA GRADUATE MEDICAL ASSEMBLY will hold its third annual session at the Biltmore Hotel, Atlanta, January 15-19, 1940. Speakers will include Dr. Cyrus C. Sturgis, Ann Arbor, Mich.; Dr. Philip S. Hench, Rochester, Minn.; Dr. Marion A. Blankenhorn, Cincinnati, Ohio; Dr. Geo. J. Heuer, New York City; Dr. Alfred Blalock, Nashville, Tenn.; Dr. Watt W. Eagle, Durham, N. C.; Dr. D. L. Thomson, Montreal, Canada; Dr. Clarence B. Farber, Toronto, Ont., Canada; Dr. Wm. J. Dieckmann, Chicago; Dr. Alexis F. Hartmann, St. Louis, Mo.; Dr. Wm. E. Chamberlain, Philadelphia, Pa.; Dr. Joseph Earle Moore, Baltimore, Md.; Dr. Philip Lewin, Chicago, Ill.

DR. RUSSELL H. OPPENHEIMER, Emory University, was installed president of the Association of American Medical Colleges during the convention at Cincinnati, Ohio. The convention in 1940 will be held at the University of Michigan School of Medicine, Detroit.

THE WARE COUNTY MEDICAL SOCIETY met at the Phoenix Hotel, Waycross, November 1. Dr. J. E. Penland, Dr. G. E. Atwood and Dr. M. M. Harris were joint hosts at dinner. Dr. W. F. Reavis read a paper on *Difficulties Encountered in Arriving at Correct Urologic Diagnosis*.

#### OBITUARY

Dr. William Orlando Durham, Maxeys; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1893; aged 70; died at his home on October 5, 1939. He was a native of Clarke county. After he graduated in medicine, he moved to Oglethorpe county where he practiced for more than forty years. Dr. Durham kept informed of the progress in the practice of medicine. He was widely known throughout Oglethorpe county as a suc-

cessful practitioner and was held in high esteem as a citizen and friend. Surviving him are his widow, one daughter, Miss Frances Durham; and one son, Dr. Wm. R. Durham, all of Maxeys. Rev. D. M. Joiner and Rev. D. L. Haygood officiated at the funeral services conducted at the Lexington Methodist church. Burial was in the Maxeys cemetery.

Dr. James Wilson Cowart, Walden; member; Tulane University of Louisiana School of Medicine, New Orleans, 1894; aged 69; died at a Macon hospital on October 11, 1939, after an illness of several weeks' duration. He was born and reared at Walden and had lived there all his life. Dr. Cowart had practiced for more than forty years. He served as county physician for ten years. He was a successful physician and a leader in his community. Dr. Cowart was a member and past master of the Masonic lodge, member of the Shrine and Liberty Methodist church. Surviving him are his widow, three sons, Dr. J. T. Cowart, Tampa, Fla.; G. W. and J. E. Cowart, Walden. Rev. Silas Johnson and Rev. I. P. Tyson officiated at the funeral services conducted at the Liberty Methodist church. Interment was in Liberty cemetery. Members of his Bible class were honorary pallbearers and members of the Macon Medical Society of Bibb County formed an honorary escort.

#### BOOK REVIEWS

*Doctor Roger's Ordeal*, by Homer Avera. J. H. Hopkins, Inc., Publishers.

This novel was written by a druggist in Fort Valley, Georgia, and concerns middle Georgia and its development between the years 1836 to 1865. The principal character in the book is a young Harvard graduate, Roger McFarland, who came with his father and brother to Georgia for the purpose of manufacturing cotton goods by water power. The McFarlands selected a site in the vicinity of the present Forsyth, Georgia.

Roger McFarland soon lost interest in the business and expressed his desire to study medicine and to gain this knowledge journeyed to Philadelphia where he was a close friend of Dr. Crawford W. Long, who was a student there at the same time. Dr. Roger returned to Georgia and began the practice of medicine. By this time he had become a great lover of his adopted State and when the War Between the States began, he was commissioned in the medical corps of the Confederate army, and served throughout the war. The latter months of the war were spent as one of the medical officers in the Andersonville prison, he having been relieved from duty at the front because of heart disease. This heart disease resulted from a venereal infection acquired several years previously.

Mr. Avera describes the territory of Georgia bounded by a line from Savannah, Macon, Atlanta and Augusta and shows familiarity with the terrain, crops, inhabitants and characteristics of the people of antebellum times. His description of the old-time camp meetings at Indian Springs is indeed interesting. His apparent knowledge of the practice of medicine during the saddlebag days, shows that he has made a careful investigation of that phase of his story.

Your reviewer was particularly interested in his description of the Andersonville prison and the manner in which the planters supplied food and equipment to the prison. Mr. Avera tells of the development of railroading in Georgia and describes very vividly the laying of track from Macon to Forsyth. He comments on the early use of ether anesthesia by Dr. Crawford W. Long and relates an instance of Dr. Roger administering ether in an obstetrical case.

Through the book is woven a love story concerning the doctor and the daughter of a Methodist preacher, whom he met at the Indian Springs camp meeting. The ordeal through which the Doctor passed concerns his physical condition and this very interesting love affair.

This book is Mr. Avera's first effort and while there is ample opportunity for one to criticize his style and technic, yet he has a story to tell and in this reviewer's opinion, does a good job. This book will be an interesting one for the Georgia doctor or his wife and is especially recommended for entertainment on a quiet winter evening.

EDGAR H. GREENE, M.D.

#### THE VITAMINS

A Symposium Arranged Under the Auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association. Imitation leather. Price, \$1.50 postpaid. pp. 637. Chicago: American Medical Association, 1939.

So much information has become available about the vitamins, that it is difficult even for experts to keep up with the literature. The present volume is a welcome compendium of authoritative information about these accessory food factors. There are discussions of the chemistry, physiology, pathology, pharmacology and therapeutics, methods of assay, food sources and human requirements of each of the important vitamins. The volume is composed of thirty-one chapters written by experts, and is published under the auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association.

This book should prove to be an indispensable volume for the library of every physician.

*Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1938.* Cloth. Price, \$1.00. Pp. 120. Chicago: American Medical Association, 1939.

This volume as usual contains noteworthy examples of the various kinds of reports made by the Council on Pharmacy and Chemistry: (1) preliminary reports; (2) supplemental reports on therapeutic or pharmacologic problems; (3) reports on the rejection of preparations offered for the Council's consideration.

Among the preliminary reports in this volume is that on Sulfapyridine, which carries a special article by Dr. Perrin H. Long, a Council member who has been much concerned with the work on this drug, is perhaps of greatest interest. After the Food and Drug Administration had released the drug for the use of physicians early in 1939, the Council accepted vari-

ous brands for inclusion in N.N.R. and in connection with the published descriptions issued another status report (J.A.M.A. 112:1830, May 6, 1939) based on a questionnaire sent to men who had been prominent in the experimental use of the drug. This report, no doubt, will appear in the next volume of reprinted Council reports. Other preliminary reports are the following: Allantoin, a preparation of glyoxyldiureid purposed to supersede the use of surgical maggots; and Sulfapyridine, published shortly before the Council acceptance of this new chemi-therapeutic drug.

Among the supplemental (or status) reports are those on Colloidal Sulfur in the Treatment of Chronic Arthritis, showing that much confirmatory evidence is needed to establish the value of this therapy; on Ergonovine, a careful study of the relation of this newly discovered principle to ergot therapy in general; and on Picrotoxin in Poisoning by the Barbiturates, showing the promise and the present limitations of this antidotal therapy.

Among the reports of rejection the following are noteworthy: Collodaurum, a "colloidal gold" preparation, promoted with unwarranted, exaggerated and misleading claims for its use in the treatment of cancer; Dermo-G, stated to be a mixture of Spermaceti, White Wax, Oil of Sweet Almonds, Sodium Borate, Precipitated Sulphur and Water, an unscientific and superfluous mixture marketed under a therapeutically suggestive name with exaggerated, unwarranted claims; Fru-T-Lax, a needlessly complex and unscientific mixture advertised to the public under a misleading and inadequately descriptive name with claims which are unwarranted; and Hyposols Sulisocol, claimed to be "Sulphur Colloid" in 2 cc. of "Autoisotonized Solution," exploited for use in arthritis with inadequate evidence of its therapeutic value. Other rejections are explained in the reports on Map and Myoston, Nupercainal-"Ciba," Pulvoids Sulfanilamide and Sodium Bicarbonate (The Drug Products Co., Inc.), Quinoliv, Sedormid, and Tri-Costivin.

#### COMMUNICATION

##### To the Editor:

At a recent meeting of the Georgia State Board of Medical Examiners the following resolution was passed:

Whereas, it has been brought to the attention of the Board of Medical Examiners that there are physicians and other persons engaged in the practice of medicine in this State who have not been licensed under the provisions of the Medical Practice Act; and

Whereas, some of these physicians are employed by institutions and are not informed regarding the requirements of the law governing the practice of medicine in Georgia; and

Whereas, such institutions are likewise uninformed regarding their rights and privileges as related to the practice of medicine; and

Whereas, all persons wishing to practice medicine in Georgia should be legally licensed under the provisions of the law;

Therefore, be it resolved that the Board of Medi-



cal Examiners enlist the aid of the Medical Association of Georgia (white) and the Georgia State Medical Association (colored), through their county medical societies; and the various hospitals and other institutions in the State in an effort to rid Georgia of illegal practitioners of medicine.

R. C. COLEMAN, *Joint Secretary*,  
State Examining Boards.

Atlanta, Ga.

October 13, 1939.

#### GET-TOGETHER MEETINGS

It will be recalled that Dr. T. F. Abercrombie, Director of the Georgia Department of Public Health, through the cooperation of the county medical societies, held ten district meetings for the doctors of our State last January and February. A great many physicians have requested that these meetings be repeated. They were known as get-together meetings.

Nine centers were selected for get-together meetings this fall. Two meetings were and are to be held at each center, beginning with Calhoun, October 24 and November 7; Athens, October 25 and November 3; Thomaston, October 31 and November 14; Albany, November 1 and 15; Valdosta, November 2 and 16; Eastman, November 7 and 28; Baxley, November 8 and 29; Statesboro, November 9 and 30; Sandersville, November 10 and December 1.

The subjects discussed at each of the meetings were The Venereal Diseases, by Dr. Leroy E. Burney, of the U. S. Public Health Service; Congenital Syphilis, by Dr. Edwin R. Watson; Cancer Control, by Dr. Ralph Mosteller; and Tuberculosis by Dr. H. C. Schenck.

The county medical society sponsored the meetings at each of the centers. All the physicians of Georgia were cordially invited to attend and participate in the discussions. Complete programs were mailed to the physicians.

#### GEORGIA PEDIATRIC SOCIETY MEETING

The annual scientific meeting of the Georgia Pediatric Society will be held in Atlanta on Dec. 16, 1939. A luncheon at 12:45 P. M. will preclude the afternoon session, which will convene at 2 P. M. The night session will meet at 7:00 P. M.

Speakers include Dr. George M. Lyon, Pediatrician to the Memorial Hospital, and St. Mary's Hospital, Huntington, W. Va. Dr. Lyon will talk in the afternoon on "Meningococcic Meningitis and Its Management" and in the evening on "Purulent Meningitis Due to Other Than the Meningococcus." Dr. Harry Bakwin, Associate Professor of Pediatrics at New York University, has accepted an invitation to give two lectures, but at present has not stated the titles of his papers. Dr. Charles F. McKhann, Associate Professor of Pediatrics at the Harvard Medical School and the Harvard School of Public Health will talk at the afternoon session on "Poliomyelitis" and at the night session on "The Progress in the Control of Respiratory Infections."

Officers of the Georgia Pediatric Society are: Dr. L. H. Muse, President; Dr. R. C. McGahee, President-elect; Dr. Leila Bonner, Vice-President, and Dr. Don

F. Cathcart, Secretary and Treasurer. The Scientific Committee is composed of Dr. Harry Lang, Dr. J. Yampolsky and Dr. Wm. W. Anderson, Chairman.

Members of the medical profession are invited.

#### MEETING OF THE RADIOLOGICAL SOCIETY OF NORTH AMERICA

All members of the Association are cordially invited to attend the annual meeting of the Radiological Society of North America which will be held in Atlanta, Georgia, Dec. 11-15, 1939. This annual meeting is coming to Atlanta for the first time and represents in its membership the leading radiologists of the United States and Canada. The program is unusually broad and instructive, being divided into three parts:

1. What is known as the "Refresher Course" which consists of courses on various subjects given by the leading men in this particular branch. This series begins Sunday afternoon, Dec. 11th, for three hours; Sunday night for two hours, and meets daily from 8 to 10 A. M. Several of the courses, particularly those subjects of wider scope, such as Radiology of the Gastro-intestinal Tract and Radiology of the Chest, are so arranged that related subjects will follow consecutively, making it possible to enroll in a sequential series. Basic presentations of Radiation Therapy will also be offered in series so that those with special interests may find Refresher Courses extending over the entire period of the series. The course on Physics of Radiation will be presented three hours on Sunday afternoon and two hours each morning of the meeting, and will follow the syllabus of lectures on the Physical Basis of Radiation Therapy, by Edith H. Quimby.

2. The morning session of this assembly is a mixed meeting on topics of radiology, including roentgenology and radium.

3. The afternoon meeting is divided into two parts: 1. Diagnostic Roentgenology; 2. Therapeutic Roentgenology and Radium Therapy.

There is no expense to members of the Association for registration, or to attend either the refresher series or the symposium. Membership in the refresher courses is limited, first to the members of the Radiological Society. After that, any physicians applying are listed in the order of application. Anyone desiring to attend this meeting should obtain the October issue of the Radiological Journal and study the program for whatever refresher course he should desire to take.

Besides the scientific program, both the commercial and scientific exhibits will be well worth attention of anyone interested in radiology. The Georgia Radiological Society is interested in having as large attendance as possible and we know that anyone interested in radiology will be well repaid for attending this convention.

JAMES J. CLARK, M.D., *President*,  
Georgia Radiological Society, Atlanta, Ga.

#### ANTITETANUS IMMUNIZATION

All soldiers in France are now required by law to be given antitetanus immunization. In 1936 over 400,000 were vaccinated. The immunity varies considerably. It may drop to a minimum level within

ninety days after the second injection or retain a high level over a period of years. This basal immunity, which is probably lifelong, is rapidly and markedly accelerated at any time with an injection of toxoid.

Rogers (Bull. New York Acad. Med., 15:553, August, 1939) has suggested that active tetanus immunization should be given to those who are sensitive to horse serum, to asthmatic patients, and other allergic individuals if they are in occupations or indulge in avocations which carry with them danger of injury. He includes in an optional group children, especially those living in the country or those who ride, and non-allergic individuals engaged in hazardous occupations or avocations.

Tetanus Toxoid, Alum Precipitated, Lilly, is supplied in packages for single and multiple immunizations. Simultaneous immunizations to diphtheria may be accomplished by using Diphtheria Toxoid-Tetanus Toxoid Combined, Alum Precipitated, Lilly.

#### WHY MEAD JOHNSON & COMPANY COOPERATES WITH THE COUNCIL

Voluntarily, we market only Council-Accepted products because we have faith in the principles for which the Council on Pharmacy and Chemistry (and the Council on Foods) stand.

We have witnessed the three decades during which the Council has brought order out of chaos in the pharmaceutical field. For over thirty years it has stood—alone and unafraid—between the medical profession and unprincipled makers of proprietary preparations.

The Council verifies the composition and analysis of products, and substantiates the claims of manufacturers. By standardizing nomenclature and disapproving therapeutically suggestive trade names, it discourages shotgun therapy and self-medication. It is the only body representing the medical profession that checks inaccurate and unwarranted claims on circulars and advertising as well as on packages and labels.

The Council cooperates, through the N.N.R., and in other ways, with the U. S. Pharmacopeia Board, testing and evaluating scores of new products which appear during the 10-year interim between Pharmacopoeial revisions.

We are conscious of the fact that the Council has at times been criticized both in and out of the medical profession. We hold no brief for perfection in any human agency. But we subscribe to the fact that the work of the Council is sound in principle; and in this high-pressure day and age, we shudder to think of a return to the proprietary-medicine-quack-nosttrum conditions of over thirty years ago, when there was Babel instead of Council.

#### WHAT EVERY WOMAN DOESN'T KNOW— HOW TO GIVE COD LIVER OIL

Some authorities recommend that cod liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she ad-

ministers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified with Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

The Randolph County Medical Society again leads all other counties in the State by remitting dues for all its members on September 8 for 1940. The late Dr. G. Y. Moore, past president of the Medical Association of Georgia, established a precedent many years ago by keeping the Society at the head of the honor roll from year to year. While Councilor for the Third District, Dr. Moore placed his district on the honor roll for a number of years. Dr. W. G. Elliott, Cuthbert, successor to Dr. Moore, has maintained the excellent record of the Society since Dr. Moore's death.

The Southeastern Branch Society of the American Urological Association will hold its next annual meeting at the Buena Vista Hotel, Biloxi, Miss., December 8-9. All members of the Medical Association of Georgia are invited to attend. Speakers on the program include: Dr. Charles M. McKenna, Chicago; Dr. Roy Henline, New York City; Dr. E. G. Crabtree, Boston; Dr. Rubin Flocks, Iowa City; Dr. Roger W. Barnes, Los Angeles; Dr. Edward N. Cook, Rochester; (Col.) Dr. J. E. Ash, Curator, Army Medical Museum, Washington, D. C.

The National Conference on Medical Service will hold its next annual meeting at the Palmer House, Chicago, February 11, 1940. Each state medical association is urged to send at least three members to represent it.

#### WHY EXTRA SALT IS NEEDED IN SUMMER

Two million glands operate at full tilt in summer to keep the body temperature down to normal by a natural cooling system of perspiration and evaporation. Harriet Morgan Fyler, Ph.D., Chicago, declares in her explanation of the need for using extra salt during hot weather, published in the August issue of *Hygeia, The Health Magazine*.

"In the course of this cooling much water is lost," she continues.

*Trends in Mortality*—A study of trends in mortality from tuberculosis for the last sixty years fails to show any reason for the fact that the rate for women over 30 has declined more rapidly than for men in the same age group.

The Sixth Institute on the exceptional child was held at Langhorne, Pa., Oct. 24.



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## GONORRHEA

The United States Public Health Service in a news release states that, "More people suffer from gonorrhea than from any other dangerous disease."

Dr. Thomas Parran, Surgeon General, U. S. Public Health Service, was quoted, "Gonorrhea constantly infects over two million people in the United States and that it was a serious problem."

Dr. R. A. Vonderlehr, Assistant Surgeon General, U. S. Public Health Service, was quoted, "The increased efforts of the Federal Health Authorities to control gonorrhea will not supplant or lessen the Public Health Service's program to rid the country of syphilis."

The Public Health Service officials are anxious to enlist public support to eradicate gonorrhea. While the people will talk about gonorrhea, they have not decided to do anything about it. Public opinion permits the charlatan and drug clerk to take advantage of infected individuals and ply their nefarious trade. "Gonorrhea is difficult to treat even for a physician who knows how."

Within recent years several new methods of treatment for gonorrhea have produced promising results. "Unless these treatments are administered by competent physicians, actual harm to the patient may follow."

The Federal Government has just printed a leaflet entitled, "Gonorrhea the Crippler" which may be purchased from the Office of Superintendent of Documents, Washington, D. C., at \$1.00 per hundred copies. More than 600,000 copies of the folder, "Syphilis—Its Cause—Its Spread—Its Cure" have been sold and orders continue to be forwarded to the Superintendent of Documents.

## THE MEDICAL WITNESS

Medical witnesses may, through reading and study, give evidence in the most forceful and effective manner. From "Frauds in Medical Practice," by the noted authority, Sir John Collie, we take these Rules for Giving Evidence:

1. Speak slowly and distinctly.
2. Watch the Judge's pen. When he stops writing resume your evidence.
3. Look at Counsel as he propounds his question, but direct your reply to the judge and jury.
4. Answer the exact question put. If any explanation or amplification is necessary, the witness has a right to give it after having given a direct answer.
5. In giving medical evidence, one must be careful not to give the Court the impression that you know that it has not any really sound knowledge on medical subjects.
6. "Nothing is more effective than to take into the witness-box a model or picture. This always impresses both the judge and the jury. One can often make a fracture quite clear by showing a bone.
7. A medical witness can always take his notes with him into the witness box and refresh his memory from them *if and only if they are the original notes which he took at the time of his examination.*
8. Seldom, if ever, use technical language; if it is imperative to do so, explain it.

9. Make sure that your process of reasoning is abundantly clear.

10. Put aside all bias, and be absolutely candid. Remember that you have sworn not only to tell "the truth" but "the whole truth." This I take it refers to *suppressio veri*. Do not hesitate to admit a fact which may at first sight appear to be against your contention; you will probably be able to demonstrate that it is not so in reality. In any event the admission will demonstrate such fairness that the remainder of your evidence will have an advanced value.

11. A medical witness should be scientifically exact, lucid and succinct.

12. Remember that, in medicine at any rate, anything is possible, therefore get the credit of willingly admitting it.

13. Never give evasive answers.

14. Never guess.

—The Orleans Parish Medical Society  
Bulletin, June 12, 1939.

The United States Public Health Service in a release dated September 19, reports that the National Institute of Health succeeded in transmitting a strain of poliomyelitis to the Eastern cotton rat. Dr. Thomas Parran, surgeon general of the United States Public Health Service, stated that the discovery was timely since the war would interfere with the importations of monkeys which to date have been the only susceptible experimental animals for poliomyelitis.

The virus which causes poliomyelitis has been carried through seven transfers in this rodent species.

"The discovery of a cheap experimental animal that can be readily reared in captivity may be expected to facilitate further studies of infantile paralysis, including the search for a possible cure."

"Symptoms produced in the rats are a counterpart of those observed in children in that one or more limbs or even the respiratory muscles may become paralyzed. Virus from the second and fifth rodent transfers produced typical experimental poliomyelitis when returned to monkeys. The results are a continuation of studies begun in 1937."

## THE HIGH INCIDENCE OF HAY FEVER

In a recent study, "The Incidence of Major Allergic Diseases in Colorado Springs," Service (J.A.M.A., 112:2034, May 20, 1939) found that, of 3,141 persons interviewed 316, or 10.06 per cent, had hay fever. It is also noteworthy that all of these sufferers had sought medical treatment.

Last year more than a half million "Benzedrine Inhalers" were sold in August and September, at the height of the hay fever season. "Benzedrine Inhaler" is advertised only to the medical profession. Thus have physicians indicated their confidence in the value of "Benzedrine Inhaler" as a symptomatic treatment for hay fever.

Each "Benzedrine Inhaler" contains amphetamine, S.K.F., 325 mg.; oil of lavender, 97 mg.; menthol, 32 mg. Smith, Kline & French Laboratories, Philadelphia.

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### PSYCHIATRIC PROBLEMS IN A GENERAL HOSPITAL†\*

HERVEY CLECKLEY, M. D.  
*Augusta*

Some years ago the title of this paper would perhaps have caused considerable bewilderment, for it has been no great while since psychiatric problems were popularly considered as being confined to frankly psychotic people; and these were hardly welcome except in those once dreaded institutions known as asylums. The prevalent conception of a psychotic patient was of a boisterous, raving madman, a creature scarcely more to be trusted on the wards of an ordinary hospital than an enraged bull.

These ideas have, of course, changed and it is widely known that many psychotic patients can be treated satisfactorily in the general hospital<sup>1 2</sup>. It is also well known that the psychoses are by no means the only personality disorders which constitute psychiatric problems. Psychiatry, after all, might be defined as that branch of medicine which deals with illness from the viewpoint of the whole personality and deals with it, primarily, by measures designed to influence the patient as a whole psychobiologic entity. Psychiatry, in this sense, becomes a form of medical practice to be used by all types of physicians with many types of patients. So, too, the technics of internal medicine, measures designed primarily to affect certain organs or systems or certain part-functions of the total mind-body unit, must be utilized by the psychiatrist when found of value in influencing, directly or indirectly, personality functioning in the patient.

Let us consider first the definitely psychotic patients, those assumed from early times to be the special problem of the psychiatrist.

At the University Hospital in Augusta more than 90 per cent of the psychotic patients seen at the out-patient clinic, in the emergency room, or coming through other sources for treatment, have been found suitable for admission to the general wards. Some of these patients, after periods of treatment up to six weeks or two months, fail to improve and must be sent to psychiatric hospitals for prolonged hospitalization. Many others, however, improve sufficiently to return to ordinary occupations.

Recent developments<sup>3 4</sup> in the therapy of the psychoses play an important part in their successful management in the general hospital. Many early patients whose relatives are still reluctant to send them to psychiatric institutions, these being still dreadful places to the unsophisticated, come willingly to the general hospital. These early cases often show spectacular response to convulsive therapy with metrazol or to insulin shock therapy, and sometimes to less drastic regimens.

Of the last 14 frankly psychotic patients who received metrazol therapy at the University Hospital during the past year, 10 made marked improvement and are now at home. Only 3 cases of these 10 are unable to carry on their regular activities. One of the 10 is doing honors' work at Duke University. Of these 14 patients 11 were well-marked schizophrenics. These figures are quoted not so much to maintain the value of the metrazol therapy, evidence of which is widely available,<sup>5 6</sup> as to stress the fact that many frankly psychotic patients can be successfully dealt with in the general hospital.

†From the Department of Psychiatry of the University of Georgia School of Medicine, Augusta.

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.

Insulin therapy, though strikingly effective in some cases, has been less successful for schizophrenics than metrazol in our particular and limited series of cases.

Though it is our contention that the general hospital has a definite usefulness in the problem of the psychoses, it is, perhaps, in the problem of the psychoneuroses that its chief psychiatric purpose is fulfilled.

One has only to recall the opinions cited by eminent practitioners in other fields<sup>7-8</sup> that about half of all patients who consult a physician are primarily suffering from personality disorders, to realize the vast field for psychiatric observation and for the application of psychiatric methods on the wards of the general hospital. Nowhere, perhaps, does one see in more vivid and more interesting form the problems of psychosomatic medicine. Among these non-psychotic, and often very rational and very intelligent patients, one sees life-aims distorted to bizarre and unsatisfactory objectives. One can study in personalities still well preserved the simpler flights from reality, the evasive or compensatory part-reactions, which, if sufficiently cumulative, lead to the puzzling state of disintegration that we call psychosis.

Let us consider one case, a particularly striking one, but similar to many others:

*Case I.* R. B., white male, 36 years of age, admitted to University Hospital, Nov. 30, 1938, after having fallen unconscious an hour previously. On admission the patient was very lethargic but complained bitterly of severe headache. The upper eyelids looked moderately edematous; face had slightly mask-like appearance; speech was stiff and difficult; right arm and leg showed marked weakness. The deep reflexes were slightly hyperactive but equal; spinal fluid examination was entirely negative.

During the next four days the patient continued to complain of headache which he insisted was unbearable. Lumbar puncture and hypertonic solutions had no effect on this pain and large doses of analgesics relieved it very little. Strength of the right arm and leg varied greatly, on some occasions being almost normal and on others approaching total paralysis. He complained at times of marked dimness of vision, saying that he could scarcely see at all. At other times he complained of diplopia. Definite strabismus, first of one eye and then of the other, was observed occasionally; but this, too, rapidly cleared up, only to return and then vanish again. He also complained of photophobia, hyperacusis and dizziness. The eyegrounds continued to be normal. There was no stiffness of the

neck. The spinal fluid remained entirely within normal limits. Temperature, pulse and respiration were always normal. Roentgenographic studies of the skull showed nothing positive.

On the next day he began to have convulsive attacks. The first attack began in the left hand which clenched into a tight fist. The left arm then deliberately moved into flexion, the right arm simultaneously extending. The head drew back and the body assumed a position of opisthotonus twisting also far to the right. The muscles of the legs and arms were very tightly contracted, the eyes open and somewhat glassy. During this spell, which lasted for six minutes, the patient continuously grunted and puffed.

During this day he had five more similar seizures. Sometimes, however, his body twisted to the left and sometimes the right arm flexed instead of the left. These manifestations were dramatic and impressive. Though somewhat suggestive of the torsion spasms seen in patients undergoing shock therapy with insulin,<sup>9</sup> and also of the similar spasms and dystonic movements of encephalitis lethargica,<sup>10</sup> they were in many ways also like the *grandes crises* of hysteria described by Charcot but seldom reported so vividly today.<sup>11</sup> The seizures often coincided with the visits of his physicians.

These seizures continued for three days. Strabismus, diplopia, paresis of the right side, masking of the face, lethargy, marked nystagmoid movements of the eyes, speech defect, all appeared and disappeared with disconcerting abruptness. The patient continued to ask for relief from unbearable headache.

Brain tumor and other organic cerebral lesions had been considered from the first. The patient refused encephalographic study with great vehemence and perseverance. He, furthermore, insisted on discussing the details of his treatment before consenting to any procedure.

Despite the normal temperature and spinal fluid, these protean signs and symptoms were regarded as pointing to the possibility of encephalitis lethargica. There was much about the patient's reactions that also suggested a psychogenic disorder. With the idea of treating a possible encephalitis, 5 cc. of normal blood serum were given intrathecally.<sup>12</sup> The patient had insisted on discussing this procedure in detail and it was evident that he regarded it with considerable gravity.

On the next day he was a new man. Though still complaining of some headache, all his other symptoms had vanished. He had no more seizures. Four days later, on Dec. 11, he was dismissed, apparently well.

He went to Florida for a rest and remained well for one week, then all the symptoms suddenly returned. He came home but refused to enter the hospital. His seizures now became more and more spectacular. He rose on head and heels, twisting far over, and gave the impression that he would fall off his bed. Members of his family rushed in alarm and supported him, exerting great pressure against the violent torsion of his fantastically poised and straining body. When his family were sent out of the room and no efforts were made to restrain him, he went through the same movements but



remained, precariously balanced yet never falling, at the edge of the bed.

After ten days of these seizures, and of shifting, manifold and dramatic paralyzes and other neurologic signs, he consented to talk about himself. Several serious and rather subtle problems in his life situation were brought out. After this interview the seizures ceased abruptly. All the other symptoms rapidly subsided. He was sitting up the next day, and within a few days was apparently himself again.

This patient's symptoms returned after two weeks. His fits became so violent that his family once reported him dead when calling the physician. He would not return to the local hospital, but insisted on driving through the country to Baltimore in his automobile the next day. Changing his mind, he went elsewhere and allowed a very capable neuro-surgeon to make encephalographic studies. These were entirely negative and the diagnosis of a psychogenic disorder was made after a thorough neurologic study.

Returning home he put himself in the hands of several physicians in succession. He was purged by one, given vitamins by another, and morphine by a third. Despite these measures he grew worse.

On seeing him again after four weeks, I found him bound in bed with stout restraints about his wrists. He objected when it was suggested that these be removed, saying that in his new spells he would probably kill his family or himself or run amok in the community. His wife reported that during the new spells he raged and blundered about the house and that, during one of them, seven negroes had failed to hold him adequately. These observed spells consisted in a somewhat somnambulistic period of several minutes during which the patient got out of bed, wrestling vaguely against those who sought to restrain him, pushed over furniture and bumped against the wall, bellowing hoarsely as he strove. His eyes had a slightly glazed, unseeing appearance suggesting hypnosis, yet one felt that he was far from unconscious in the ordinary complete sense. With great difficulty his attendants were persuaded to release him. When released his activities were definitely less vigorous and less alarming. Suddenly he would awake from his spell and appear perfectly poised and rational. His headache was now as severe as during the first attack.

Hypodermic injections of sterile water, it was found, relieved these headaches as well as the morphine had done. Apomorphine promptly stopped the seizures. After two days the patient was persuaded to let the restraints be removed. Next day he sat up and seemed almost himself. Plans were made for a more extensive personality investigation, the patient now seeming sufficiently cooperative.

On my next visit the patient looked entirely well. He expressed dissatisfaction with the indecisiveness of his many physicians and stated that his problem had been solved. A chiropractor, brought to the house that morning, having run a confident finger briskly down the spine, had said: "It is a simple case. This bone is out of line." Pressing on one side of the vertebra the chiropractor added, "This makes the headache worse,

doesn't it?" "Yes!" agreed the patient, yelling in agony. "Now this stops it entirely," the chiropractor continued pontifically. The headache, the patient said, had miraculously disappeared.

For several months the patient has been at work and is apparently well.

Limitations of time make it impossible to discuss this man's personality background and the conflicts which underlay his hysteria. It is interesting, however, to note that he has made his way against great educational and financial handicaps to a very successful position in life. He is an honest, extremely industrious, business man, regarded by his partner and former employer and by the community as a most superior person. He is particularly fearless though not unpleasantly aggressive. It is furthermore an interesting point that his psychoneurotic breakdown followed the attainment of a life-long goal toward which he had worked with remarkable energy, shrewdness and persistence.<sup>13</sup> He showed no evidence of a psychosis at any time during his illness. Time does not permit us to give details of other patients showing similar psychosomatic disorders.

A 25-year-old woman had, among other dramatic signs and symptoms, recurrent spells of coma lasting from 24 hours to 10 days. These proved to be entirely psychogenic.

A 24-year-old matron, with complete aphonia of five weeks' duration and paralysis and contracture of the left hand so severe and persistent that bony changes were found in the interphalangeal joints, turned out to be not a case of organic disease but primarily a personality problem.

A 30-year-old man, suffering from attacks of panic and uncontrollable hyperpnea would develop severe and persistent tetanic spasms of the hands and arms<sup>14</sup> and, occasionally, such spasticity of the intestines that they were palpable through the abdominal wall, hard like coils of lead pipe. His blood calcium and the CO<sub>2</sub> combining power of blood taken during an attack were normal. The spells could be brought on or stopped by suggestion.

A 47-year-old woman with swollen, paralyzed, erythematous hands, so definitely anesthetic that pins could be run entirely through the skin and Halsted clamps pinched into its folds without her complaining, showed immediate return of function and sensation after five minutes of hypnosis.

Patients of this type, all of them personality problems, make the wards of the general hospital hardly less interesting than the specialized institutions to the physician who is interested in psychiatry.

### Summary

The general hospital, while not a competitor with those institutions designed solely for the treatment of psychiatric disorders, offers good opportunities for the study and treatment of many types of personality disorder. If suitable psychiatric patients are accepted in general hospitals interest in their problems among the medi-

cal profession as a whole will be stimulated and the ever-increasing and most desirable rapprochement between psychiatry and the other medical specialties will be furthered. In teaching institutions, particularly, this is a valuable practice since it encourages the student to see personality problems in connection with the other problems of medicine and, hence, perhaps not to lose sight of the great importance<sup>14</sup> that personality factors play in all patients.

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#### DISCUSSION ON PAPER OF DR. HERVEY CLECKLEY

*Dr. John E. Walker (Columbus):* Dr. Cleckley's paper is on a very important subject. Our general hospitals invariably contain a number of psychotic and psychoneurotic patients suspected of having somatic disease. In our emphasis on somatic disease, many of these patients are not properly diagnosed, and are submitted to useless medical or surgical procedures. We are all well acquainted with such errors. Dr. Cleckley, however, goes further than merely condemning this situation. He shows that the general hospital is a superb place for the treatment of many mental diseases. Instead of admitting these patients to a general hospital willy-nilly and by accident, some of them should be deliberately urged to be treated there.

It was especially instructive to learn of the results he has had with metrazol therapy. Most physicians in general medicine have scrupulously avoided convulsive treatment, feeling that it had best be left to special institutions. This point of view in the light of Dr. Cleckley's experience, apparently needs revision.

Dr. Cleckley has stated that approximately 50 per cent of the general run of patients are suffering from personality disorders. The quack knows this and, as in the superb account of Dr. Cleckley of a quack in action, dispenses with all diagnostic attempts, disregards completely the possibility of somatic disease, and proceeds immediately to the administration of psychotherapy in the form of some hocus-pocus—sometimes with apparently brilliant results as in the instance recounted by Dr. Cleckley.

In this era of brilliant progress in scientific medicine, it is a sorry commentary that quacks flourish more than ever before in the history of the world. Psychiatrists are pointing the way out of this dilemma, and are conferring a great benefit on the whole profession when they teach us their methods. For that reason, it is always a privilege to hear such a paper as that read by Dr. Cleckley.

*Dr. George L. Echols (Milledgeville):* I have had occasion to study the mental disease problem from many viewpoints; from that among savages to studying under the best psychiatrists in the country. On one occasion in West Africa I remember seeing an insane native on the outskirts of a village being watched by another native. The patient was gesticulating, talking rapidly, appeared very much elated, and seemed to be a typical case of manic-depressive insanity. The chief explained to me that when this patient had his attacks of mental disturbance, he was carried to the outskirts of the village and cared for by natives detailed by the chief for that purpose. In the above-mentioned case among semi-savages, the first point that strikes me is that the mental disease had become a community or tribal problem. In the higher types of civilization—i.e., in the more advanced governments—the commonwealth takes the place of the tribes, so far as responsibility for the mental disease is concerned.

This paper as presented by Dr. Cleckley interests me very much. He is right in his statement that many cases of mental disease can be treated in a general hospital; but I feel that it is unwise to attempt to take acute, highly excited patients into a general hospital, particularly the smaller hospitals scattered over our state, as a highly excited, acute case, as I see it, would be very upsetting to the nursing force and to the other patients in the institution. They are not prepared to care for such mental cases, due to lack of equipment and lack of experience among the personnel, and such patients should be sent immediately to the State Hospital.

It appears to me that mild schizophrenics might be safely carried to a general hospital and given metrazol and other treatments; and the same might be said for many other types of mental disturbance.

The sad part of the whole situation is that the term "state hospital" is so closely connected with the idea of an insane asylum. When a person has been committed to a state hospital, even in case he is so fortunate as to be completely recovered, he still carries with him the stigma of having been a patient in an insane asylum.



*Dr. Hervey Cleckley (Augusta):* I would like to thank Dr. Walker and Dr. Echols for their very kind interest in discussing my paper. I have little to add except to point out that such treatment as that administered by the chiropractor, although successful in removing the presenting symptoms, is not conducive to a psychiatric patient making fundamental improvement. It is, in fact, very much against the patient's learning to understand the meaning of his symptoms and the underlying conflict. It is therefore detrimental to his making real improvement in the sense of solving his life problems. This particular patient had, in my own opinion, almost recovered despite the reappearance of his alarming convulsive phenomena. He had already begun to realize vaguely that his symptomatic manifestations were the result of personality disorder. Such a partial realization often strongly embarrasses a patient after such dramatic demonstrations as were seen in this case. It is well known, of course, that witchcraft, incantations or the sacrifice of wild animals might be seized upon as the unconscious excuse or serve as stimulus for the disappearance of hysterical symptoms. Ignorant and unfounded but confident manipulations of the quack worked just as the wearing of a dead cat around the patient's neck might have worked had it been worn with faith. Although any conceivable mumery may temporarily bring an end to such symptoms, very careful and prolonged treatment of such patients is usually necessary to prevent them from falling back into similar psychosomatic disorder. After removal of the symptoms the patient himself must learn to understand how they disappeared and also how they arose. When a patient attributes a cure to the quack and accepts explanations of quackery he not only fails to gain ground but actually loses it. Psychiatric treatment which is necessarily painstaking and sometimes arduous for both physician and patient, though less spectacular than the occasional false miracles of quackery, is exactly opposite in its aim from faith healing and quackery. Its aim is not to fool the patient but, whatever the effort involved, to lead the patient to understand himself more clearly and to learn to adjust within his capacities his problems in life.

#### HIGH AND LOW BLOOD PRESSURE

The popular notion that low blood pressure is a disease and moderately high pressure normal and safe is fallacious, according to Samuel C. Robinson, M.D., and Marshall Brucer, Chicago, *The Journal of the American Medical Association* for Dec. 2 points out in a discussion of this question. The two men say that on the contrary, longevity is based on three physiologic levels: Low weight, low pulse rate and low blood pressure. The continuous blood pressure history of 500 apparently well men examined annually for about ten years revealed that those with pressures consistently low rarely showed a steady rise, in contrast to those with consistently high pressures even when only of a slight degree.

The National Conference on Medical Service (formerly the Northwest Regional Conference), will hold its 14th annual meeting at the Palmer House, Chicago, Sunday, February 11, 1940.

## ONE THOUSAND TRANSURETHRAL OPERATIONS\*

### RESULTS COMPARED WITH OPEN OPERATIONS

EDGAR G. BALLENGER, M. D.

OMAR F. ELDER, M. D.

HAROLD P. McDONALD, M. D.

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*Atlanta*

It has been said that "during the first part of a man's life he tries to make money and during the last part he tries to make water." Whether or not this is entirely true it is agreed by all authorities that fully 50 per cent of all men do have difficulty passing urine during the later years of life; that is in the fifth, sixth and seventh decades of life. This difficulty is due to obstruction at the vesical outlet and is caused by:

1. Fibrous bar or fibrous contraction at the vesical neck.
2. Middle lobe hypertrophy of the prostate.
3. Lateral lobe hypertrophy—the enlarged prostate.
4. Cancer of the prostate.

These various types of obstructing lesions are found to occur in approximately the following percentages:

Bars and small fibrous prostates.....	50 per cent plus
Middle lobe.....	10 to 15 per cent
Hypertrophy varying sizes.....	20 to 25 per cent
Cancer .....	15 per cent plus

What are the symptoms of vesical neck obstruction? The symptoms are (A) local or those referable to the bladder, and (B) general symptoms.

#### A. LOCAL SYMPTOMS COMMONLY SEEN ARE:

1. *A slow stream, weaker than formerly.* There is an increase in time necessary to void and a decrease in the distance the stream is thrown. This is probably the most constant and important symptom or sign of vesical neck obstruction.

2. *Urgency or urgent desire to void.* When the desire to void comes the patient is unable to wait but must void immediately or he wets himself.

3. *Frequency of urination.*

4. *Nocturia*—getting up at night to void has been considered in the past the main symptom of prostatic obstruction. It has been shown, however, that nocturia is frequently a late symptom and may not come on until infection has set in or considerable residual urine is retained in the bladder. In view of this, nocturia is not so important a symptom as are slow stream, and urgency and frequency, symptoms which usually appear early.

\*Read before the Medical Association of Georgia, Atlanta, April 27, 1939.



5. *Infection and incomplete emptying* as well as difficulty in starting the stream which also may be late in appearing.

#### B. GENERAL SYMPTOMS:

The general symptoms of vesical neck obstruction are those of a toxemia caused by impaired renal function. These may be loss of appetite, gas, and occasionally nausea. The skin may have a pasty, sallow appearance. The individual becomes sluggish, or falls asleep easily, especially after eating. The general health is on the down grade.

#### DIAGNOSIS

The diagnosis of vesical neck obstruction can usually be made from the history, i.e., slow stream, difficulty in starting, urgency or frequency. During the examination it is important to watch the patient void. Not infrequently a patient will not be impressed with the fact that his stream is poor. It is important, therefore, to observe him during the act of micturition to ascertain the force and promptness of flow. Rectal examination will disclose the size of the prostate and whether or not hard, cancerous nodules or lobes are present.

Cysto-urethroscopic examination is usually unnecessary for diagnosis and may be deferred until the patient is anesthetized for the operation. There are times, however, when cystoscopic study is required to determine whether or not an operation is advisable.

Cystograms aid materially in determining the size of the prostate; enlargement may be shown protruding into the bladder. Intravenous urograms may show impaired renal function or dilated pelvis and ureters due to bladder neck obstruction.

Blood chemistry studies afford important evidence concerning the extent of renal damage and should be utilized when impairment of the kidneys is suspected. High nitrogen content in the blood is a definite indication for proper preoperative drainage.

The intravenous phthalein test is of decided value if the urine is obtained at fifteen-minute intervals. Normal kidneys excrete from 25 to 35 per cent of phthalein during the first fifteen minutes and from 15 to 20 per cent the second fifteen minutes. Delayed excretion or poor concentration of the fifteen-minute specimen is a sign of impaired kidneys.

#### TREATMENT

There are two types of operations for vesical neck obstruction: (1) Transurethral prostatectomy, and (2) Open prostatectomy, either suprapubic or perineal.

We have done 1000 transurethral operations. Our results show that the transurethral method is superior to the open method for all types of vesical neck obstruction with one exception. The obstruction is occasionally caused by a prostate gland of huge size. For these the open operation is preferable. These extra large glands comprise less than 1 per cent in our series.

The majority of the men who have done 500 or more transurethral operations now perform very few open operations. Alcock, of Iowa City, has done 3 open operations in 1700 cases; Folsom, of Dallas, has done 2 in 900 cases; Davis, of Greenville, S. C., has done but 1 open prostatectomy in 900 vesical neck obstructions. Thompson, at the Mayo Clinic, in a recent personal communication, states that in 1500 cases he has done but 2 open prostatectomies and that one of these prostates weighed over 350 grams. In our series we have done 4 suprapubic prostatectomies in 1000 cases. Two of these were in our early work and would not seem too large for transurethral operation at the present time.

Orr's questionnaire sent to members of the American Urological Association showed that 73 urologists had done 13,000 transurethral resections with a mortality of only 2.8 per cent, and among those who had done 500 or more the mortality was 1.9 per cent. Our mortality has been slightly more than 2 per cent, but only five out of twenty-three deaths were in patients under 70 years of age.

#### COMMENT

The transurethral method affords a lower mortality because there is less shock and less hemorrhage. Some deaths in our early work were due to lack of experience and today would not occur.

The transurethral method affords a shorter stay in the hospital and therefore is less expensive to the patient. The average hospital stay is seven days after operation,

and only 9 per cent of the patients stay over two weeks.

In addition to advantages of low mortality rate and shorter time in the hospital, the transurethral method is applicable to many poor operative risks who otherwise would be refused operation on account of advanced age or enfeebled condition.

Bumpus operated on 38 patients over 80 years of age with no deaths. Thompson did transurethral resections upon 32 patients over 70 with no deaths. In our series the oldest patient, 94, successfully underwent a transurethral prostatectomy. The experienced resectionist might reduce his mortality almost to the vanishing point by selection of only good operative risks.

#### OBSTRUCTIONS DUE TO CANCER OF THE PROSTATE

In 1930, before transurethral surgery came into general use, Bumpus, after studying 1000 patients with cancer of the prostate, concluded that "suprapubic cystotomy alone gave longer life, more comfort, and less suffering than any other method or combination of methods."

Since transurethral surgery has become perfected a great majority of urologists advocate the transurethral method in the relief of obstructions caused by cancer. For most patients with prostatic cancer greater relief and longer life now is afforded by the transurethral removal of obstructing masses than by any other means. The cutting current seals the cut edges and does not increase metastasis. The current also appears to have a retarding action on the growth itself. Additional tissue may be removed at a later resection when necessary for the free flow of urine.

#### WHAT ARE END RESULTS?

Good results from transurethral resection depend upon thorough removal of the obstructing tissue. If this cannot be satisfactorily done in one sitting, another resection should be done within a week or so, depending upon the patient's condition. Multiple resections have been found advisable in 5 per cent of obstructions. We have had but one death in our series following multiple resection for benign obstructions.

#### WHY POOR RESULTS?

Poor results are sure to follow failure to remove all of the obstructing tissue. Prolonged infection and slow healing also follow destruction of the blood supply to hypertrophied masses not resected. These masses undergo necrosis and become fertile soil for bacteria. Separation of such masses is probably the most important cause of late bleeding.

Flocks has shown by his studies of the blood supply of the prostate that important arteries pass anteriorly from the vesical neck to the lateral lobes. Resection of the obstructing areas at the vesical neck destroys part of the blood supply to hypertrophied lateral lobes. Good results naturally require the removal of tissue whose blood supply has been blocked. We are now attempting and succeeding reasonably well in doing transurethral complete prostatectomy. By so doing prompter healing and better functional results have followed than when only the most protruding parts of enlargements were removed. It is not sufficient merely to make a trench from the verumontanum to the bladder. Shrinkage of tissue cannot be depended upon to overcome obstruction.

#### SUMMARY

Transurethral operations have proven superior to open operations for all types of vesical neck obstructions with the exception of those caused by prostates of extra large size, less than one per cent in the hands of experienced operators.

The mortality rate is lower, averaging two per cent among those men who have done 500 or more transurethral operations. The hospital stay is shorter and hence is less expensive for the patient. The average post-operative hospital stay is seven days.

The end results are good and lasting in benign obstructions if *complete* removal of the obstructing tissue is carried out.

DISCUSSION ON PAPER OF DR. BALLENGER, ELDER,  
McDONALD AND COLEMAN

*Dr. Rudolph Bell* (Thomasville): Transurethral prostatic surgery is a wonderful achievement in urology as is evidenced by the relief afforded with the marked decrease in morbidity and mortality to the prostatic patient. It is to be emphasized that there is no operation in which one will encounter more difficulties and

accidents than will be experienced during the course of a transurethral prostatic resection unless one is trained and equipped for the operation.

The mortality rate quoted by Dr. McDonald compares favorably with that of most experienced urologists. In my series of well over 200 resections, excluding hospital training, I have lost only three cases. Autopsy proved one of those to be ruptured heart from coronary occlusion. The patient died four days after operation. As stated to me by one of my medical collaborators, "When you get a patient for operation you already have two strikes and no balls on you." Therefore, given this same number of aged individuals with their accompanying disabilities to care for over a corresponding period of time, one would hardly expect a mortality of less than two per cent whether any operation was performed or not.

The stay of prostatic patients in the hospital is being greatly reduced. Praise for this is to be given the patient's family physician who recognizes the condition and insists that proper treatment be instituted at an early date. The more stubborn individuals have to remain in the hospital sometimes for a week or ten days on an indwelling urethral catheter drainage and supportive treatment before they are in condition for operation. The usual stay in the hospital following a resection is four to six days. So the stay of a patient in the hospital for a prostatic resection depends on his condition upon admission to the hospital.

Lastly, I want to stress the symptoms and diagnosis of the early prostate. Beginning difficulty on starting the urinary act, diminution in size of the stream and nocturia are apt signs of prostatic trouble. Much information can be gained by a digital rectal examination of the prostate. Then have the patient to void, after which pass a soft rubber catheter into the bladder and determine the amount of residual urine. If more than one-half ounce of urine is obtained a further investigation should be made.

*Dr. W. F. Reavis (Waycross):* Dr. McDonald has thoroughly covered this field and has left very little for us to add. I think the transurethral operation as it is being done today has been received as universally as any new operative procedure that I know of in my time. I have had the privilege of being in on the ground floor of this work. I certainly think it is a proper procedure under practically all conditions that exist. I am sure that the majority of the bad results in the early operations were due to lack of knowledge of the proper methods of procedure. One of the reasons why so many men now condemn or do not do the transurethral method is due to the poor equipment that we had to work with in the earlier years. At the present time there is a practical stabilization of electrical surgical instruments with the result that we are safe in proceeding at all times with this work. The resectoscope has simplified the work and in the hands of a man who is thoroughly familiar with the instrument is very satisfactory.

These patients, as has been emphasized, are bad risks to begin with. You have a man who is on his last legs

in the majority of cases. We have a series of cases that were very simple and that it was a pleasure to do. Elderly men certainly are poor risks to start with.

There has been some discussion as to when the transurethral resection is indicated and when the open method is indicated. I don't think the size of the gland has anything to do with it except as Dr. McDonald so ably pointed out in the extremely large gland. It is encountered seldom. It is easier to resect a large gland than a small. Those of you who do the prostate operation by the suprapubic route realize that the small lobe is more difficult than the larger lobe. I think that the end result from the transurethral method is superior to the end result of the open prostatectomy. We can take only the end result. Those of you who have looked into the bladders following the average prostatectomy that has been done in the past will agree with me. I think, too, the suprapubic operation is certainly a very skillful procedure. I think it should be done by men thoroughly trained in operative work. I think, too, the transurethral operation should be done by men thoroughly trained in the procedure before they undertake it by themselves. I don't know any men doing surgery that don't have some type of accidents in their work. Our early accidents were sometimes due to poor drainage, postoperative. At the present time the postoperative care has been lessened. The difficulty in drainage occurs when you have a slight hemorrhage. It is not necessary to coagulate so thoroughly these patients as we did in the early years.

Just one thing I'd like to say in regard to offering it to the young prostates—that is, the young man who has a prostate gland. There is a sexual side to all men's lives. All men are concerned. The average man who has a radical operation or prostatectomy has practical loss of sexual power. He has the desire but as a rule some vessel is destroyed and he has lost his sexual power. In the transurethral operation conditions have improved. His sexual life is improved but we are not advertising this to you men as we are not running that kind of game.

*Dr. Julian K. Quattlebaum (Savannah):* I was formerly interested in this subject because I did the suprapubic and perineal operations for prostatic hypertrophy. Since the introduction of the transurethral operation, I have rarely had the occasion to do the open operation.

I would like to mention a point that I believe is of some importance in doing the transurethral resection. Many of the patients who require this operation have sclerotic and contracted anterior urethras and many times the resectoscope can be passed only after forcibly dilating the anterior urethra and frequently rupturing it and otherwise producing considerable trauma to this passage. Following the operation which has relieved the prostatic obstruction, the patient may find that he has difficulty in voiding because of stricture formation in the anterior urethra. I am sure that many times the unlooked for reactions following this operation can be attributed to the trauma of the anterior urethra. Instead of forcibly passing the instrument through the anterior urethra, in cases where it does not readily admit the



scope, a small perineal opening into the membranous urethra which normally will permit the passing of a size 30 F. sound, will make it possible to pass the resectoscope into the bladder without difficulty and also permit the scope to be manipulated more easily. It is not necessary to close the perineal incision at all as this opening will heal quite readily without suturing. These suggestions may be of value to those doing this operation and it has been recommended by competent authority.

*Dr. J. W. Palmer (Ailey):* I don't know whether what I have to say is discussion or testimony. I am one of the 1,000 that Dr. McDonald had something to say about. You know the Lord healed a blind man and the Pharisees and Sadducees were trying to get him to deny what the Lord had done. He said, "This one thing I know—I was blind and now I see." One thing I know—I couldn't void but now I can.

I imagine when I look upon the faces of you all here this morning many of you are thinking about what I did five years ago, "When and how will I be operated on?" I was operated on five years ago and at that time it was about 50-50 as to what operation to select but I selected the transurethral route. *This operation is a very delicate operation.* You must have an experienced operator. I think a man who goes in to do as delicate and important operation as transurethral removal of the prostate gland should be a man of experience. In fact, I consider it one of the most serious operations and a major operation. I don't think there has been more progress made in any branch of medical science than has been made in removing the prostate gland. When I think of the progress made, my mind goes back to 1899. The first operation I ever saw for relieving a prostatic trouble was in Baltimore and the idea then was that this obstruction was due to gravity and that the only way to relieve a man of this trouble was to remove his testes and I sat in the amphitheatre in Baltimore and saw the testicles of a man with this disease removed and passed around to the class and they were the only removed testicles of a man I ever saw. That happened in Baltimore in 1899. That is all they knew about relieving the prostate. How glad I am these scientists have made this progress. I am very much indebted to them. Now, we patients who have been operated on are very grateful to these specialists in this line of medical work.

There was a doctor who was operated on and was so much impressed with that line of work that he told his son, "When you read medicine, I am going to demand that you do that line of work." He is practicing in this line of medicine in Atlanta today. There is an organization in the State of Georgia in which nobody is eligible to membership except men whose prostate glands have been removed by the transurethral method and I am chairman of that organization and if you want any data or details, see me later.

*Dr. Harold P. McDonald (Atlanta):* Failure to remove all obstructing tissue gives poor results.

Simply removing part of the gland is insufficient.

Making a trench in the middle lobe is unsatisfactory.

Do not depend upon shrinkage. Do a second resection immediately if patient does not empty bladder completely or void satisfactorily.

Dr. Alcock in Iowa City has made a study of the distribution of the blood supply of prostate glands and his studies show definitely why removal of part of the gland does not give satisfactory results. The blood vessels come into the bladder and course along the prostate. The drawing shows the lateral lobe with the other part. You can see the blood vessels coursing out on the urethra.

Another drawing shows a similar thing. Larger vessels are found. See the surface between the lateral and medial lobe. It shows the lateral and medial lobe with the blood vessels coming in. Seventy-five per cent come in in that way. Removing part of the lobe with instruments causes infection, necrosis.

Transurethral operations have proven superior to open operations for all types of vesical neck obstruction with the exception of those caused by prostates of extra large size—less than one per cent in the hands of the experienced operator.

Dr. Nisbett of Ann Arbor, Michigan, about two years ago, perfected an instrument similar to the one we use now but larger, used through a button hole incision. The Doctor spoke of the method used at the Mayo Clinic. This instrument is larger than the ordinary resectoscope. It can be used where your opening is too small or there is stricture or fibrosis.

Dr. Palmer spoke of the removal of testicles for the relief of prostate obstruction. Many various operations have been tried. Removal of testes for prostate obstruction certainly would not be very popular or last very long.

Another slide shows the resectoscope and the blades preparatory to trimming away enlarged gland. This is the front view of the lobe, air cystograms, the snout protruding up into the bladder. After operation it shows it all taken away and no obstruction.

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#### WHY WE CANNOT TICKLE OURSELVES EVEN THOUGH OTHERS CAN

There are two kinds of tickling, deep and surface. *The Journal of the American Medical Association* for Dec. 2 explains in answer to an inquiry about the different effects of tickling when done to oneself and when done by other persons. Deep pressure over the ribs, in the arm pit and elsewhere cause the muscles underneath to contract, the person to draw away, laugh, cry or exclaim. The reason this does not happen when done by a person to himself is because he consciously resists and because the muscles are kept relatively stiff. Actually deep tickling can usually be resisted by keeping the muscles rigid and contracted. The response to tickling is a true reflex and is carried by the nerves up the spine to a portion of the brain (the thalamus) which translates the sensation into the response of laughter, crying, etc. The surface sensation of tickling may be caused by light touch such as a feather and lasts often after the stimulus which caused it has been stopped.

## REMINISCENCES IN MEDICINE\*

HENRY R. SLACK, M.D.  
*LaGrange*

We are living in an age characterized by hurry and change. Men are so busy with the problems of the present and so concerned over the apparently greater problems of the future that they have little time to think of the past. Yet, as Prof. W. I. Thomas states in his *Source Book of Social Origins*: "No situation in life can be completely understood in its immediate aspects alone. Everything has an origin and a development."

So, tonight I ask you to look with me for a few minutes at some of the developments which have taken place in the field of medicine during the years which I have been practicing. So far as I know, I am the oldest physician who ever practiced medicine in LaGrange, and I have practiced longer than any other. My nearest rivals are Dr. Pitman, who practiced 42 years, and Dr. Baugh, who practiced 44 years, one graduating in Georgia and the other in Pennsylvania.

After attending the University of Maryland and Johns Hopkins University I graduated 53 years ago in pharmacy, and for five years was associated with Dr. T. S. Bradfield in his drug store and also taught chemistry and physics in the Southern Female College and the LaGrange Female College. Later, I continued my education at Hopkins, the University of Kentucky and the Atlanta Medical College, now the Medical Department of Emory University and, after receiving my medical degree, began practicing medicine 48 years ago. For a number of years, in addition to my practice, I continued to teach chemistry and physics at the two colleges here, and it is always a pleasure to meet some of my former pupils, many of whom are now grandmothers. After graduating in medicine, five young men read medicine under me. Three graduated with first honors: one in Philadelphia, one in Baltimore, and another in Chicago. I am glad to say Dr. J. N. Brawner is still a leader in our profession. He visited and helped me for a stroke.

I have been a member of the Medical Association of Georgia since 1892. In 1895 I went as a delegate to the American Medical Association, held in Baltimore. There were 35 from Georgia at that meeting. At that time there were less than 10,000 members in the American Medical Association.

While a student at Hopkins it was my rare privilege to have courses under Drs. Osler, Welch, Halsted, Kelly, and Finney; and to see some of the first experiments made in this country in many fields, including x-ray. The early interest in x-ray at Hopkins was due to Dr. Nutting who was studying with Prof. Roentgen at the University of Wurtzburg, Germany.

So far as I know, the first man in Atlanta to use x-ray treatment for skin and cancer was Dr. M. B. Hutchins. One old lady I took to him was given occasional treatments and lived to be 86. Early in 1900 I installed an x-ray outfit in my office which was then in the rear of Bradfield and Slack's Pharmacy. It was the only machine in this section and many patients came from this area and from Alabama. In the years since, I have seen x-ray used successfully for goiter, tumor, cancer in the early stages, various skin diseases, tuberculosis, etc.

Another discovery within my lifetime has been the use of radium, for which we are indebted to Madame Curie. My own experience with radium has been that of a patient, not doctor. My hands were so badly burned by x-ray that I thought it would be necessary to remove the first finger on my left hand because of an open sore which interfered with both my golf and my practice. I consulted Dr. Enoch Callaway, who would not remove it but insisted that I go to Atlanta for radium treatment at what was then the Steiner Clinic. Thanks to Dr. Calvin Stewart and Dr. Callaway and to the radium, the surgeon's knife and skin-grafting which they used, the finger healed entirely.

Another discovery of the last half-century in which I have been interested is diphtheria antitoxin. When I was in Atlanta in 1890-91, Dr. Todd, professor of children's diseases, treated ten patients with diphtheria and eight died. The next year when I was at Hopkins eight out of ten lived because of the use of the new antitoxin which was being

\*Address before the Fourth District Medical Society, LaGrange, August 8, 1939.

made in the Pasteur Institute and in Berlin. When I came back to Georgia I asked Dr. Floyd McRae, head of the health department in Atlanta, to keep the antitoxin on hand so that it could be secured when needed. Not long after that I was called to see a child in the country. A microscopic examination showed that he had diphtheria, so I wired Dr. McRae for the antitoxin, and Dr. Cason, brother of Mrs. Fuller E. Callaway, who had just come to LaGrange to practice, went with me to administer the dose. We used the new syringe which I had brought from Baltimore; the boy was given two injections and recovered and is now living in Arkansas. This was the first case here treated with antitoxin, and of the nineteen patients Dr. Cason and I treated we lost only one. Despite the success which we had many parents and some physicians refused to use the antitoxin. I recall one case, that of the family of Dr. Fitts, who was practicing at Mountville. His son was ill with diphtheria and the doctor called in would not use the new treatment. The boy died and the next week a younger sister was sick; her father sent for me; we gave the antitoxin and she is still living.

After I started the use of x-ray treatments in 1900 many patients came from a distance, so many in fact, that it was difficult to take care of them without a hospital, so I built the LaGrange Sanatorium in 1902. Dr. William R. McCall came to LaGrange to be associated with me in this undertaking, his special field being in anesthetics. The sanatorium seemed a wonderful institution then with its sixteen beds and operating facilities, but it would seem very crude compared with what we have in our new City-County Hospital. I am delighted to learn of the cooperative plan by which a sufficient quantity of radium will be available for treatment. My hope is that you younger doctors will make use of the knowledge and equipment which you have today for relieving the suffering of humanity and bettering the human race. Much has been done by the men who have gone before you.

*The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

## GEORGIA PHARMACEUTICAL ASSOCIATION AND ITS COOPERTIVE RELATIONS WITH OUR ASSOCIATION\*

CURTIS D. VINSON, M.D.†  
*Atlanta*

I wish to assure you that it is a very great pleasure for me to come before your society at this time, during your 64th Annual Convention, representing as I do, a closely related and kindred organization, representing all those physicians, some 3,000 in number, from the Chattahoochee River to the Savannah, and from Tybee Island to the Blue Ridge Mountains; and it is from these, the physicians of the Medical Association of Georgia, that I bring most sincere and hearty greetings, to each and every member of your Association.

And while here I wish to commend you on the splendid type of men composing your organization, the high standards you have set, and the fine work that you are doing.

I also wish to mention a few of the things that we as physicians appreciate on the part of our druggists. For instance, if we are to spend valuable time in taking careful clinical histories on our patients at the bedside, in making thorough physical examinations, and in doing a certain amount of laboratory work, in order to arrive at a diagnosis in a given case, then we appreciate the same care on the part of our druggist in the weighing, the measuring, and the compounding of the prescription. We believe that you are doing this.

We also still appreciate the druggist behind the counter, who checks and rechecks every prescription. The physician sometimes writes the prescription in the office as the telephone rings at his elbow, or at the bedside as the baby cries, and the mother and grandmother both ask questions, or under other trying circumstances; and thus you see that the checking and rechecking of the prescription is of great value to the physician and the patient.

We also appreciate the fact that when a patient comes into your store or shop and gives you a long list of his complaints and asks your advice, that you are handing across

\*Address before the Sixty-fourth Annual Session of the Georgia Pharmaceutical Association, Savannah, June 19-22, 1939.

†Fraternal Delegate from the Medical Association of Georgia.



your counter, more liberally today than ever before, the oft-heard and seen expression: "See your family doctor." This is being handed out so cleverly and tactfully that hundreds of patients are returning to the general practitioner to be referred back to you repeatedly with prescriptions to be filled, and thus in an ethical way you are giving him your support and contributing to *better business* for all concerned.

We also want you to know that we are responsive, and do appreciate all movements on your part, intended to foster, promote and actually bring about better understanding and closer relations between the members of our two professions. There are many ways of doing this. The druggists of the Atlanta area, the Fifth District, for several years past have put on a barbecue, annually, and had the physicians of that section as their invited guests. But last year the Fulton County Medical Society, wishing to reciprocate, stole a march on them and put on a barbecue and invited the druggists. On such occasions we have ample opportunity to know each other better, to discuss our common problems, and to improve our working conditions. Also, once each year a representative of the local pharmaceutical association is invited and comes before our local medical society and is given a place on our program. Thus we may learn much from one another; and with the threatening storm of socialized medicine already on the horizon, we will probably need in the very near future closer cooperation between our two organizations.

A very beautiful essay has been written by Robert Louis Stevenson on "The Physician as the Flower of Our Civilization" in which he describes him as one having fewer of the baser qualities, and a greater abundance of the finer attributes of life that go to make a perfect man, than is usually found in one of the common herd. I wish that an essayist would write such on the life of the druggist as I have personally known him, of his long hours spent behind the counter, ever ready to serve in an emergency, of his low professional fee, of his predominating spirit of *good cheer* that he dispenses so freely with his goods. I feel that we owe much to him. Somehow as I look at the great seal of the State of Georgia and see there the three columns supporting the

arch, I like to think of the druggist, the physician, and the nurse, supporting the health of the nation. As I look at the emblem of the Odd Fellows, and see there the three connected links of the chain, in some such relationship I like to think of the druggist, the physician, and the nurse—the three linked together—one and inseparable in their work for humanity.

Gentlemen, we have every right to proudly feel that both professions are engaged in one of the noblest endeavors of man. For from its very beginning, the science of medicine has contributed vastly to the happiness of human beings. Of all the fears that have tormented man, the greatest of these has been the fear of pain, suffering, disease, and death. Back in the Dark Ages hundreds of thousands of human beings were destroyed by diseases and plagues that swept across the face of the earth. Contagion, disease and death entered the palace and the hut and destroyed the prince and the pauper alike.

But today, due to the advances in chemistry, pharmacy, and medicine, civilized man no longer fears typhoid fever, yellow fever, bubonic plague, leprosy, diphtheria, and even syphilis. The acute course of gonorrhea is being greatly shortened by the use of newer chemicals and more efficient treatment. Sulfa-pyridine threatens to displace the technical typing and expensive serum treatment of lobar pneumonia. By the use of newer drugs the whole course of the once-dreaded pellagra is being modified, the skin eruptions erased, the sore tongues cleared up, and patients, mentally affected, snatched from the very doors of insane asylums.

Life expectancy itself in about half a century, has been moved up from 35 to 61 years in the United States of America.

So we, like soldiers of a conquering army, are happy to know that the medicine of today, in which we are actually engaged, is a living, vital science, with its frontiers constantly advancing.

In closing, please allow me to thank you again for this privilege, to thank you for the professional courtesies shown daily to our members, and urge and invite you to send your delegate to the annual meeting of the Medical Association of Georgia.

## THE PRESIDENT'S PAGE

### THE IMPORTANCE OF VITAL STATISTICS

A great many physicians as well as others born in Georgia cannot produce documentary evidence acceptable to the courts, establishing the date, place of birth and name of parents, because no record of their birth was made.

While the majority of us will not be called upon to produce such records, changing social and economic conditions have made birth certificates essential in obtaining financial and other advantages. More and more often will our children be called upon to submit birth certificates. Many counties and cities require registered birth certificates before a child may enter school. This often causes much inconvenience to children of Georgia who wish to enter schools in other states. In some states one must have a birth certificate to get a job, or to procure a marriage or a driver's license. There are also some industrial corporations which require these certificates for all employees for the purpose of establishing correct age as well as to be certain that they employ only American citizens. Thus, our citizens are often unable to secure good positions because they are unable to produce the necessary certificate.

Those fortunate enough to travel abroad must have a certificate of birth before a passport can be obtained, and those who are unfortunate must have one in order to obtain aid for dependent children from welfare and governmental organizations.

Georgia's birth, maternal and infant mortality rates are compiled from the number of births that are registered. Our maternal and infant mortality rates are considerably above the United States' rates. Complete birth registration would help to lower our maternal death rates. Make it your iron-clad rule to report every birth within a few days. If you do this, you do your duty and manifest your interest in the new-born citizen and the reputation of our State.

Death certificates are likewise of great importance, not only as to the cause of death, but to set forth the color, age, sex, and place of death. These items are very

important in settling estates, insurance claims, and in securing benefits to heirs of estates. These data are also necessary to establish the right of dependent children to secure pensions and assistance from welfare organizations. Death certificates are the most reliable source of information for measuring the advance made by medical science.

One of the major obstacles in retarding the industrial development of our State and the South generally has been malaria. This condition takes preference over many of the other causes of death in the International List of Causes of Death used by the Census Bureau in preparing figures in Georgia for national and international distribution. For example, if a patient dies with any particular one of twenty or more diseases, and malaria is given as a contributory cause of death, the case is credited as a death from malaria. If the case was diagnosed by laboratory examination and made a definite contribution to the death, it should be given as the cause, but it should not be listed unless it has been so diagnosed and did play a part in the death of the individual.

The most recent birth and death certificates provide for recording the social security number. This may seem of little use, but it is likely to be very valuable to children or families in establishing claim for social security benefits.

We should exercise care in preparing certificates of birth, and death, for much depends upon the completeness of these records. Carelessness in writing or failure to enter essential facts may cause much trouble to some person or persons in the distant future.

Likewise, every communicable disease should be reported promptly, in order that steps may be taken to prevent its spread.

Let me take this opportunity of extending Season's Greetings to all members of the Association and to the Woman's Auxiliary. "I wish you all the joy that you can wish."

WM. H. MYERS, M.D.

# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

DECEMBER, 1939

## RURAL HEALTH NEEDS

In our War Between the States, typhoid fever took a toll of a thousand men for every hundred thousand engaged in warfare every year. In the Spanish-American War it took a toll of one hundred men for every hundred thousand engaged; in the late World War only five out of every hundred thousand engaged had typhoid. Nothing much was thought of the appalling number of deaths in the Civil War. We can remember how terrible were thought the typhoid deaths in the Spanish American War, and yet the five out of every hundred thousand in the World War were considered unnecessary.

Typhoid fever is unnecessary, and a country having typhoid fever should feel disgraced; yet in rural Georgia, twenty-one years after the World War, we continue to have entirely too large a number of typhoid cases, this despite our certain knowledge of prevention, our increased knowledge of sanitation, and our greatly improved Public Health Service.

This same World War decline is true of almost all of the contagious and communicable diseases, such as smallpox, diphtheria, tuberculosis, malaria, hookworm and venereal diseases. However, in rural Georgia, these diseases are still a serious problem, and actually some in recent years are on the increase.

Medical knowledge has attained definite prophylaxis against such diseases as smallpox, typhoid and diphtheria, so that if it were properly applied they should be as rare as dinosaur eggs.

In addition to these old diseases we, in rural Georgia, are confronted with two new ones that are on the increase, namely, undulant fever and endemic typhus.

Last year four hundred mothers died in childbirth in Georgia. Most of these were preventable had they had proper prenatal care. Why are these diseases still allowed to claim their yearly toll of deaths and dis-

ability when their cause and prevention are so well known?

It is not due to lack of medical knowledge or indifference on the part of the physicians. Preventative measures are well known today, and prevention of diseases is a heritage of the medical profession. There are, however, in certain sections of rural Georgia too few physicians. It is not due to lack of a desire to combat these diseases on the part of the public health authorities.

Our State Public Health Department, under the able administration of Dr. Abercrombie, is eager to go into every county and at once begin the fight to prevent these diseases, but these services are not requested nor are arrangements made to pay for them in the majority of the rural counties of Georgia.

There are several reasons for the lack of control of communicable diseases in rural Georgia; first, there are too many counties in Georgia that are too poor to finance a public health program; second, and the most important reason of them all is, that our people and the county authorities, through ignorance, penuriousness, or pure inertia, do not try to do their part toward availing themselves of the benefits of the Public Health Service.

It is our duty, as practicing physicians, to try to educate these people to the necessity of preventing these diseases for their own protection, and to activate the county authorities into taking the necessary steps.

J. C. PATTERSON, M.D.,  
*President-Elect.*

## FORM NATIONAL PHYSICIANS' COMMITTEE FOR EXTENSION OF MEDICAL SERVICE

On Nov. 18, in Chicago, a formal meeting of an executive board officially launched a new organization, the National Physicians' Committee for the Extension of Medical Service," a report in *The Journal of the American Medical Association* for Dec. 2 says. "At this meeting the following officers were elected: Dr. Edward H. Cary, Dallas, Texas, chairman; Dr. Austin A. Hayden, Chicago, secretary, and Dr. N. S. Davis III, Chicago, treasurer. These officers were given authority to act as a management committee for the new organization.

"A central committee of more than 800 physicians is being formed, in which all the states will be represented. Some of those already listed in the central committee include Drs. Howard Morrow, San Francisco; Charles W. Mayo,



Rochester, Minn.; Herman L. Kretschmer, Chicago, and Charles Gordon Heyd and Haven Emerson, New York.

"The organization is an independent one, not affiliated in any way whatever with the committee sponsored by Mr. Frank Gannett under the management of Dr. Edward A. Rumeley or with the so-called Committee of Physicians or with the American Medical Association. The functions will not, it is stated, overlap or infringe on those of existing county, state or national medical organizations. For its finances, this organization depends wholly on voluntary contributions from physicians, dentists, nurses, hospitals, pharmacists and lay groups interested in the maintenance of the private practice of medicine. In literature released by the Management Committee, the reasons for forming this new institution are stated as follows:

"Medicine is confronted with two new sets of conditions. On the one hand, widespread unemployment, low farm income, and the continuation of conditions of general depression have made it difficult for an ever increasing number of people to pay for the best medical service and proper hospitalization out of earnings.

"On the other hand, there is the trend—worldwide in scope—toward governmental paternalism and the false, suicidal doctrine that the "state" can provide a service and a security that the people cannot otherwise obtain. As related to medicine, the implementing of this concept would effect revolutionary changes in both the practice of medicine and the underlying philosophy which has given it the dynamic quality that resulted in worldwide leadership.

"If the ethical and scientific standards are to be maintained, the independence of American medicine preserved and the public interest best served, American physicians must:

1. Make possible the providing of medical service to the indigent and those in the low income groups, and insure the most widespread distribution of the most effective methods and equipment in medicine and surgery.

2. Assume the responsibility of countering destructive propaganda by familiarizing the public with the facts in connection with the methods and the achievements of American medicine.'

"The objectives are embodied in a motion, unanimously adopted by the directors:

'Resolved, That the National Physicians' Committee for the Extension of Medical Service is a nonprofit, non-political organization for maintaining ethical and scientific standards and extending medical service to all the people . . . and for . . . cooperating with lay and medical institutions and groups, interested in the preservation of national health, to make more generally known the achievements and to safeguard the independence of American medicine.'

"A broadage nationwide educational program has been planned and the preliminary steps have been taken to put it in operation. An effort will be made to familiarize the public with the aims,

the methods and the effectiveness of American medicine. It is believed that this will result in generally improving health conditions and will tend to offset propaganda that is altering the point of view of the individual and adversely affecting the status of the physician.

"The Executive Board includes Dr. Edward H. Cary, Dallas, Texas; Dr. Austin Hayden, Chicago; Dr. N. S. Davis III, Chicago; Dr. Irvin Abell, Louisville, Ky.; Dr. F. F. Borzell, Philadelphia; Dr. William F. Braasch, Rochester, Minn.; Dr. John A. Hartwell, New York; Dr. Roger I. Lee, Boston; Dr. Alphonse McMahon, St. Louis; Dr. E. H. Skinner, Kansas City, Mo., and Dr. Charles B. Wright, Minneapolis.

"Mr. John M. Pratt has been secured as executive administrator. The offices are at 700 North Michigan Avenue, Chicago."

## ABDOMINAL SURGERY IN CHILDREN

With the development of surgical specialties during the past 25 years there has been considerable progress in pediatric surgery. This has been due largely to the pediatricians who have done much to direct attention to the various surgical problems in infants and children. As an example, since the Henrietta Eggleston Memorial Hospital, Atlanta, was opened in 1928 there have been more than 1399 major and 5991 minor surgical procedures done in that institution. In my early experience prior to 1920, major surgery in the very young was a rare procedure.

It has recently been suggested that such work is so highly specialized that we should develop pediatric surgeons to work hand in hand with the pediatricians. That this is desirable is open to debate, but that there is need for special interest in this type work there can be no doubt, and in no field has this been more evident than in abdominal surgery.

Abdominal surgery in children ranks second only to surgery of the ear, nose, and throat; and orthopedics. In the past 10 years from a list of 291 children under 14 years of age seen in private practice and on the service at Henrietta Eggleston Memorial Hospital with surgical diseases listed under general surgery, 241 have had diseases and defects involving the abdomen and abdominal viscera.

The more common conditions in children are appendicitis, hernias, congenital hyper-

trophic pyloric stenosis, intussusception, congenital anomalies of the gastro-intestinal tract, diseases of the spleen, intestinal obstruction, acute mesenteric adenitis, retroperitoneal or mesenteric cysts, and malignancies. Almost 50 per cent of abdominal surgery in children as seen in a large experience will be related to acute appendicitis and its complications. Perhaps the least frequently seen are those conditions due to trauma to the abdominal viscera.

The operative mortality rate will vary, depending upon the pathologic changes encountered, but as a general rule operations are well tolerated. For example, in 237 abdominal operations for all conditions, there were 11 operative deaths, 5 of whom were infants with multiple anomalies of the gastro-intestinal tract, or children with malignancies.

In the cases with abdominal disease amenable to surgery, the highest operative mortality will obviously be found in those presenting an acute surgical abdomen. The more common of these are acute appendicitis, intestinal obstruction due to volvulus; strangulated hernia or intussusception, and severe injuries with abdominal signs and symptoms. The element of time is perhaps the greatest single factor in determining the outcome of such cases. A simple appendectomy within 12 to 18 hours of the onset of symptoms should carry a mortality rate approaching zero, as evidenced by 109 consecutive appendectomies without a death, whereas if delay in instituting surgery becomes a factor and perforation occurs the mortality rate rises to 3 to 4 per cent, and if a general peritonitis develops it reaches 25 per cent. The same is true in cases of intestinal obstruction. Patients of this type whose deaths can be anticipated are those whose symptoms have been present for 36 to 72 hours before surgical intervention.

In considering the element of time, therefore, it is apparent that the burden of responsibility for any undue delay must rest with the physician who first sees the patient. Any child presenting signs and symptoms of abdominal disease unless clearly and unquestionably of a medical

nature, should have the benefit of a surgical opinion within a few hours of the onset of symptoms. A diagnosis in a child, especially in the very young, is often difficult, and being able to observe the patient during the early symptoms may be distinctly advantageous. The same may be said of non-emergency surgical conditions; the surgeon may render the child a real service by his opinion being made available during the process of diagnosis and preparation for operation.

No discussion of abdominal surgery can be complete without mentioning the use of purgatives. They can only be mentioned to condemn their use in the child with the "stomachache." Purgatives result frequently in perforation and should be avoided.

In spite of all that has been written in the medical literature and in the lay press against the use of laxatives in the presence of abdominal pain, it is appalling to see the number of cases of acute abdominal disease brought into the hospital after the administration of a "thorough round of calomel." In 109 consecutive proven cases of acute appendicitis without rupture, 64 per cent had received purgatives; and of the 31 cases with ruptured appendices, 94 per cent gave a history of one or more doses of some form of laxative. These figures speak eloquently against the use of any laxative in the presence of abdominal pain until the cause for that pain has been proven beyond doubt. This is particularly important in children and infants because of the frequency of gastro-intestinal upsets requiring the attention of physicians.

It would seem, therefore, that the pressing need is the recognition by the attending physician and parents that intra-abdominal disease in children and infants demanding surgery is not uncommon, and the outcome of any given case is largely dependent on the period of time elapsed between the onset of symptoms and the institution of surgical therapy. To this must be added the warning that medication, either in the form of laxatives or narcotics, should not be administered until a diagnosis has been made, and the need for medical or surgical treatment determined.

LON GROVE, M.D.

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*Ninety-First Annual Session*  
*Savannah*  
*April 23, 24, 25, 26, 1940*

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### NEWS ITEMS

BIBB COUNTY MEDICAL SOCIETY met at Ridley Hall, November 7. Dr. Willard R. Golsan and Dr. A. M. Phillips illustrated a paper with a motion picture entitled *Abdomino-Perineal Resection for Carcinoma of the Rectum*.

DR. C. C. HEDGES, Savannah, Chatham-Savannah health officer, spoke at a meeting of the Savannah

Health Center on October 30 on *Savannah's Public Health Program*.

DR. F. M. BARFIELD, Atlanta, attended the twenty-ninth annual clinical congress of the American College of Surgeons held recently in New York City.

DR. H. H. MCGEE, Savannah, is acting president of the Chatham-Savannah Tuberculosis Association since the transfer of Dr. J. C. Mixon by the Atlantic Coast Line Railroad to Charleston.

DR. FRED A. METTLER, Augusta, attended the meeting of the American Association of Medical Colleges recently held in Cincinnati, Ohio. He represented the University of Georgia School of Medicine as an alternate for Dr. G. Lombard Kelly, Dean of the School.

THE FOLLOWING GEORGIA PHYSICIANS were recently elected to fellowship in the American College of Surgeons: Dr. E. C. Herman and Dr. J. S. Holder, LaGrange; Dr. J. B. Avera, Brunswick; Dr. Carl C. Garver, Atlanta; Dr. O. D. Gilliam, Columbus; Dr. Willard R. Golsan, Macon; Dr. Paul H. Milton, Fort Oglethorpe; Dr. Robert L. Oliver, Savannah; and Dr. F. B. Rawlings, Sandersville.

THE STAFF MEETING OF THE CRAWFORD W. LONG MEMORIAL HOSPITAL, Atlanta, was held on November 9. The program consisted of reports by chairmen of committees and a case report, *An Unusual Accident following a D. and C.*

THE FLORIDA MEDICAL ASSOCIATION will hold its next annual convention at Tampa, Florida, April 29, 30 and May 1, 1940.

THE STAFF MEETING OF GRADY HOSPITAL, Atlanta, was held on November 14. Dr. E. G. Jones presented a case of *Left Pneumonectomy for Congenital Cyst of Lung*; discussed by Dr. Ben H. Clifton. Dr. Bruce Logue reported *Six Cases of Dissecting Aneurysms of Aorta*; discussed by Dr. Carter Smith and Dr. Warren Matthews.

THE GEORGIA DEPARTMENT OF PUBLIC HEALTH has requested that we announce that there will soon be several positions to be filled by physicians trained in public health. The necessary training may be secured without cost to the physician and the next course will begin early in January. Applicants should be not more than thirty-five years of age, unless they have had public health experience. If you are interested, please confer with Dr. T. F. Abercrombie, Director of the Georgia Department of Public Health, Atlanta.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on November 14. Dr. R. E. Dyer, U. S. Public Health Service, Washington, D. C., read a paper entitled, *Endemic Typhus Fever*—illustrated with lantern slides. Refreshments were served.

THE FULTON COUNTY MEDICAL SOCIETY met at the Academy of Medicine, Atlanta, November 16. Dr. Charles A. Eberhart and Dr. J. Elliott Scarborough reported a case, *Carcinoma of the Prostate*; Dr. Jos. H. Boland spoke on *Football Injuries*; Dr. Carter Smith and Dr. H. C. Sauls read a paper, *Coronary Occlusion—A Clinical and Electrocardiographic Study of 100 Patients*;

(Continued on page 504)

# Directory of the Medical Association of Georgia for 1939

Names of all Members and Officers are published as corrected by Secretaries of County Societies

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 Train, J. K., 1107 Bull St., Savannah  
 Upson, E. T., 22 East Jones St., Savannah  
 Usher, Chas., 6 East Liberty St., Savannah  
 Usher, J. A., 1302 Bull St., Savannah  
 Waring, A. J., DeRenne Apt., Savannah  
 Waring, T. P., DeRenne Apt., Savannah  
 Whelan, E. J., 14 West Jones St., Savannah  
 Williams, L. W., 107 East Jones St., Savannah  
 Wilson, S. E., 12 West Jones St., Savannah  
 Wilson, W. S., 303 East Taylor St., Savannah (Hon.)

#### CHATTOOGA COUNTY

##### Officers

President ..... Talley, R. E.  
 Vice-President ..... McLeod, Mary Mgt.  
 Secy.-Treas. .... Battle, Lee H., Jr.  
 Delegate ..... Magoun, C. E.  
 Alternate Delegate .. Pernworth, Paul H.

##### Members

Battle, Lee H., Jr., Trion  
 Brown, H. D., Summerville  
 Funderburk, N. A., Trion  
 Hair, W. B., Summerville  
 Hyden, Wm. U., Trion  
 Little, R. N., Summerville  
 Magoun, C. E., Trion  
 McLeod, Mary Margaret, Trion  
 Pernworth, Paul H., Venice, Ill.  
 Platt, S. B., Menlo  
 Shamblin, B. F., Lyerly (Hon.)  
 Smith, J. A., Lyerly (Hon.)  
 Talley, R. E., Trion (Hon.)  
 Wood, M. N., Menlo (Hon.)

#### CHEROKEE-PICKENS COUNTIES

##### Officers

President ..... Brooke, Geo. C.

Vice-President ..... Boring, J. R.  
 Secy.-Treas. .... Andrews, Chas. R., Jr.  
 Delegate ..... Roper, C. J.  
 Alternate Delegate ..... Turk, J. P.

##### Members

Andrews, Chas. R., Jr., Canton  
 Boring, J. R., Canton  
 Brooke, Geo. C., Canton  
 Coker, Grady N., Canton  
 Coker, N. J., Canton (Hon.)  
 (deceased)  
 Hendrix, M. G., Ball Ground  
 Moore, R. M., Waleska (Hon.)  
 Pettit, J. T., Canton  
 Robinson, G. G., Tate  
 Roper, C. J., Jasper  
 Turk, J. P., Nelson  
 Vansant, T. J., Woodstock

#### CLARKE-MADISON-OCONEE

##### COUNTIES

##### Officers

President ..... Cabaniss, W. H.  
 Vice-President ..... Kelly, Geo. W.  
 Secy.-Treas. .... Talmadge, Harry E.  
 Delegate ..... Gholston, W. D.  
 Alternate Delegate ..... Gerdine, Linton

##### Members

Banister, H. G., Ila  
 Birdsong, H. W., Athens  
 Bryant, C. H., Comer  
 Cabaniss, W. H., Athens  
 Davis, J. W., Athens  
 Decker, C. J., Athens (Hon.)  
 Florence, Loree, Athens  
 Gerdine, Linton, Athens  
 Gholston, W. D., Danielsville  
 Goss, R. M., Athens  
 Holliday, A. C., Athens (deceased)  
 Holliday, Henry C., Athens  
 Holliday, J. C., Athens  
 Hunnicutt, J. A., Jr., Athens  
 Kelly, Geo. W., Carlton  
 Middlebrooks, C. O., Athens  
 Moss, W. L., Athens  
 Patton, Lewis S., Athens  
 Reynolds, H. I., Athens  
 Simpson, Jno. A., Athens  
 Talmadge, Harry E., Athens  
 Veale, Emory O., Arnoldsville  
 Westbrook, R. J., Ila  
 Whelchel, G. O., Athens  
 Whitley, L. L., Crawford

#### CLAYTON-FAYETTE COUNTIES

##### Officers

President ..... Wallis, J. R.  
 Vice-President ..... Coleman, Y. R.  
 Secretary-Treasurer ..... Busey, T. J.  
 Delegate ..... Wallis, J. R.

##### Members

Busey, T. J., Fayetteville  
 Coleman, Y. R., Jonesboro  
 Seawright, E. C., Fayetteville  
 Wallis, J. R., Lovejoy

#### COBB COUNTY

##### Officers

President ..... Allen, G. O.  
 Vice-President ..... Hagood, M. M.  
 Secy.-Treas. .... Teem, M. Van B.  
 Delegate ..... Terry, H. B.

##### Members

Allen, G. O., Marietta  
 Bagley, D. A., Austell  
 Banister, C. D., Marietta, R. I  
 Bennett, J. L., Acworth

Clark, F. B., Austell  
 Elder, C. D., Marietta  
 Ellis, J. W., Kennesaw  
 Fowler, A. H., Marietta  
 Fowler, R. W., Marietta  
 Garrett, L. G., Austell  
 Gober, W. Mayes, Marietta  
 Hagood, G. F., Marietta  
 Hagood, M. M., Marietta  
 Humphries, W. C., Acworth (Hon.)  
 Kemp, W. M., Marietta (Hon.)  
 (deceased)  
 Lester, J. E., Marietta  
 Mitchell, W. C., Smyrna  
 Perkinson, W. H., Marietta  
 Teem, M. V. B., Marietta  
 Terry, H. B., Acworth  
 Welch, L. L., Marietta

**COFFEE COUNTY****Officers**

President ..... Jardine, Dan A.  
 Vice-President ..... Goldman, D. A.  
 Secretary-Treasurer ..... Johnson, Roy L.  
 Delegate ..... Clark, T. H.  
 Alternate Delegate ..... Harper, Sage

**Members**

Clark, T. H., Douglas  
 Crovatt, J. G., Nicholls  
 Davis, Claude L., Aima  
 Dismuke, H. L., Ocilla  
 Goldman, D. A., Broxton  
 Goodwin, H. J., Douglas  
 Harper, Sage, Ambrose  
 Harris, Raymond, Ocilla  
 Jardine, Dan A., Douglas  
 Johnson, Roy L., Douglas  
 Johnston, T. H., Douglas  
 McElroy, S. L., Ocilla  
 Shellhouse, L. H., Willacoochee  
 Sibbett, Wm. A., Douglas (Hon.)  
 Wallace, J. W., Douglas

**COLQUITT COUNTY****Officers**

President ..... Woodall, J. B.  
 Vice-President ..... Slocumb, C. B.  
 Secretary-Treasurer ..... Withers, S. M.  
 Delegate ..... Brannen, C. C.  
 Alternate Delegate ..... McGinty, W. R.

**Members**

Bennett, W. L., Moultrie  
 Brannen, C. C., Moultrie  
 Brannen, Cecil, Moultrie  
 Chesnutt, T. H., Moultrie  
 Edmondson, H. T., Moultrie  
 Funderburke, A. G., Moultrie  
 Joiner, R. M., Moultrie  
 Lan'er, J. E., Moultrie  
 Lawson, E. L., Moultrie  
 McGinty, W. R., Moultrie  
 Odum, A. J., Berlin (Hon.)  
 Pauk, J. R., Moultrie  
 Shepard, Kirk, Moultrie  
 Slocumb, C. B., Doerun  
 Stegall, Robert E., Moultrie  
 Stone, J. C., Doerun  
 Williams, C. S., Norman Park (Hon.)  
 Whittendale, W. H., Norman Park  
 Withers, S. M., Moultrie  
 Woodall, J. B., Moultrie

**COWETA COUNTY****Officers**

Secretary-Treasurer ..... Cochran, M. F.  
 Delegate ..... Tribble, J. M.

**Members**

Barge, A. A., Newnan (Hon.)

Cochran, M. F., Newnan  
 Elliott, C. C., Sargent  
 Glover, H. C., Newnan  
 Hammond, G. W., Newnan  
 McDonald, R. H., Newnan  
 Tribble, J. M., Senoia  
 Woodroof, Wm. L., Newnan

**CRISP COUNTY****Officers**

President ..... Whelchel, A. J.  
 Vice-President ..... Adams, Charles  
 Secretary-Treasurer ..... Wootten, L. O.  
 Delegate ..... Smith, M. R.  
 Alternate Delegate ..... Wootten, L. O.

**Members**

Adams, Charles, Cordele  
 Armstrong, E. S., Cordele  
 Dorminy, J. N., Cordele (Hon.)  
 Flournoy, H. C., Warwick  
 Harvard, V. O., Arabi (Hon.)  
 McArthur, C. E., Cordele  
 Smith, M. R., Cordele  
 Whelchel, A. J., Cordele  
 Williams, H. J., Cordele  
 Williams, L. E., Cordele  
 Williams, P. L., Cordele  
 Wootten, L. O., Cordele

**DECATUR-SEMINOLE COUNTIES****Officers**

President ..... Jenkins, H. B.  
 Vice-President ..... Willis, L. W.  
 Secretary-Treasurer ..... Ehrlich, M. A.  
 Delegate ..... Chason, Gordon  
 Alternate Delegate ..... Chason, Thos.

**Members**

Alford, A. E. B., Bainbridge  
 Bridges, E. C., Donalsonville  
 Brinson, H. H., Brinson (Asso.)  
 Chason, Gordon, Bainbridge  
 Chason, Thomas, Donalsonville  
 Davis, E. S., Climax (Asso.)  
 Ehrlich, M. A., Bainbridge  
 Fort, M. A., Bainbridge  
 Jenkins, H. B., Donalsonville  
 Smith, E. C., Donalsonville  
 Welch, Carl B., Attapulugus  
 Wheat, R. F., Bainbridge  
 Whittle, Wm. E., Iron City (Asso.)  
 Wilkinson, W. L., Bainbridge  
 Willis, L. W., Bainbridge

**DeKALB COUNTY****Officers**

President ..... Smith, W. P.  
 Vice-President ..... McGeachy, T. E.  
 Secy.-Treas. .... Matthews, Lawrence P.  
 Delegate ..... Allen, H. H.

**Members**

Allen, H. H., Decatur Bank & Trust Co.  
 Bldg., Decatur  
 Allgood, C. L., Scottdale  
 Andrews, W. W., Tucker  
 Ansley, H. G., 121 Clairmont Ave.,  
 Decatur  
 Blincoe, Homer, P. O. Box 789, Emory  
 University  
 Cunningham, C. E., Masonic Temple,  
 Decatur  
 Duncan, G. A., Masonic Temple,  
 Decatur  
 Evans, J. R., 120 Clairmont Ave.,  
 Decatur  
 McCoy, W. R., Lithonia  
 McCurdy, Willis T., Stone Mountain  
 Mendenhall, W. A., Chamblee

Pattillo, C. E., 145 Clairmont Ave.,  
 Decatur  
 Smith, W. P., Jr., 319 Church St.,  
 Decatur  
 Sweet, Mary F., Agnes Scott College,  
 Decatur (Hon.)  
 Venable, John H., Emory University  
 Watkins, A. R., Chamblee (Hon.)  
 Wilson, B. V., Decatur Bank & Trust  
 Co. Bldg., Decatur (deceased)

**DOOLY COUNTY****Officers**

President ..... Davis, E. B.  
 Secretary-Treasurer ..... Malloy, M. L.  
 Delegate ..... Harris, V. L.

**Members**

Daves, V. C., Vienna  
 Davis, E. B., Byromville  
 Evans, A. P., Hawkinsville  
 Harris, V. L., Pinehurst  
 Malloy, Martin L., Vienna  
 Mobley, H. A., Vienna

**DOUGHERTY COUNTY****Officers**

President ..... Buckner, W. B.  
 Vice-President ..... McKemie, H. M.  
 Secretary-Treasurer ..... Lucas, I. M.  
 Delegate ..... Freeman, Alex  
 Alternate Delegate ..... Thomas, N. R.

**Members**

Bacon, A. S., Albany  
 Barnett, J. M., Albany  
 Buckner, W. B., Albany  
 Cook, W. S., Albany  
 Field, W. M., Albany  
 Freeman, Alex R., Albany  
 Hilsman, A. H., Albany  
 Hilsman, P. L., Albany  
 Irvin, I. W., Albany  
 Keaton, J. C., Albany  
 Lucas, I. M., Albany  
 McKemie, H. M., Albany  
 McKenzie, R. D., Albany  
 Neill, F. K., Albany  
 Redfearn, J. A., Albany  
 Rhyne, W. P., Albany  
 Robinson, Hugo (Hon.)  
 Sapp, E. F., Albany  
 Thomas, Frank E., Albany  
 Thomas, N. R., Albany  
 Tye, J. P., Albany

**DOUGLAS COUNTY****Officers**

President ..... Hamilton, R. E.  
 Vice-President ..... Vansant, C. V.  
 Secretary-Treasurer ..... Taylor, Thos. B.

**Members**

Hamilton, R. E., Douglasville  
 Taylor, T. B., Douglasville  
 Vansant, C. V., Douglasville

**ELBERT COUNTY****Officers**

President ..... Bailey, D. V.  
 Vice-President ..... Smith, F. A.  
 Secretary-Treasurer ..... Johnson, A. S.  
 Delegate ..... Johnson, J. E.  
 Alternate Delegate ..... Bailey, D. V.

**Members**

Adams, F. L., Elberton, R. F. D. (Hon.)  
 Bailey, D. V., Elberton  
 Gaines, T. H., Elberton  
 Johnson, A. S., Elberton  
 Johnson, J. E., Elberton



Johnson, J. E., Jr., Elberton  
 Johnson, W. A., Elberton  
 Mattox, B. B., Elberton (Hon.)  
 Smith, A. C., Elberton  
 Smith, F. A., Elberton  
 Thompson, D. N., Elberton  
 Ward, G. A., Elberton, R. 1

#### EMANUEL COUNTY

##### Officers

President ..... Chandler, J. H.  
 Vice-President ..... Smith, D. D.  
 Secretary-Treasurer ..... Akers, N. M.  
 Delegate ..... Franklin, R. C.  
 Alternate Delegate ..... Akers, N. M.

##### Members

Akers, N. M., Swainsboro  
 Brown, R. G., Graymont  
 Chandler, J. H., Swainsboro  
 Franklin, R. C., Swainsboro  
 Franklin, V. E., Graymont (Hon.)  
 Lucas, W. H., Cedartown  
 Powell, C. E., Swainsboro  
 Smith, D. D., Swainsboro  
 Smith, G. L., Swainsboro (Hon.)  
 Youmans, S. S., Swainsboro

#### FLOYD COUNTY

##### Officers

President ..... Harbin, W. P., Jr.  
 Vice-President ..... Johnson, Ralph N.  
 Secretary-Treasurer ..... Johnson, Ralph N.  
 Delegate ..... Mull, J. H.  
 Alternate Delegate ..... Gilbert, Warren

##### Members

Banister, W. G., Rome  
 Billingshurst, Geo. A., Rome  
 Borders, W. A., Armuchee (Hon.)  
 Bosworth, E. L., Rome  
 Chandler, J. L., Rome  
 Cheney, J. N., Silver Creek  
 Conner, J. C., Cave Springs  
 Cox, R. P., Rome (deceased)  
 Dellinger, A. H., Rome  
 Elmore, B. V., Rome  
 Garrard, J. L., Rome  
 Gilbert, Warren, Rome  
 Harbin, B. Lester, Rome  
 Harbin, R. M., Jr., Rome  
 Harbin, R. M., Sr., Rome (deceased)  
 Harbin, W. P., Jr., Rome  
 Harbin, W. P., Sr., Rome  
 Johnson, Ralph N., Rome  
 Lewis, W. H., Rome  
 Maddox, R. C., Rome  
 McArthur, C. H., Rome (Hon.)  
 McCall, J. T., Rome  
 McCall, Jno. T., Jr., Rome  
 McCord, M. M., Rome  
 McCord, Ralph B., Rome  
 Methvin, S. R., Lindale  
 Moore, Clifford, Lindale  
 Moss, T. H., Rome  
 Mull, J. H., Rome  
 Norton, Robert F., Rome  
 Routledge, A. F., Rome  
 Sewell, W. A., Rome  
 Smith, G. B., Rome  
 Smith, Inman, Rome

#### FORSYTH COUNTY

##### Officers

President ..... Mashburn, Marcus  
 Vice-President ..... Brice, J. T.  
 Secretary-Treasurer ..... Lipscomb, W. E.  
 Delegate ..... Tribble, P. W.

##### Members

Brice, J. T., Cumming  
 Bramblett, R. H., Cumming  
 Lipscomb, W. E., Cumming

Mashburn, Marcus, Cumming  
 Tribble, P. W., Cumming

#### FRANKLIN COUNTY

##### Officers

President ..... Brown, S. D.  
 Secretary-Treasurer ..... Smith, B. T.

##### Members

Brown, Stewart D., Royston  
 McCrary, H. L., Royston  
 McCrary, J. O., Royston  
 Parker, G. M., Carnesville  
 Pool, E. T., Lavonia  
 Ridgway, Robert E., Royston  
 Smith, B. T., Carnesville  
 Williams, David C., Lavonia

#### FULTON COUNTY

##### Officers

President ..... Greene, Edgar H.  
 President-elect ..... Rushin, Chas. E.  
 Vice-President ..... Martin, J. D., Jr.  
 Secretary-Treasurer ..... Harrison, M. T.  
 Delegate ..... Greene, Edgar H.  
 Delegate ..... Aven, C. C.  
 Delegate ..... Burke, B. Russell  
 Delegate ..... Dorrough, W. S.  
 Delegate ..... Poer, D. Henry  
 Delegate ..... Rushin, Chas. E.  
 Delegate ..... Denton, John F.  
 Delegate ..... Strickler, C. W.  
 Delegate ..... Sauls, H. C.  
 Alternate Delegate ..... Fulmer, Geo. W.  
 Alternate Delegate ..... Dougherty, M. S.  
 Alternate Delegate ..... Fitts, Jno. B.  
 Alternate Delegate ..... Eubanks, Geo. F.  
 Alternate Del. .... Dimmock, Avary M.  
 Alternate Delegate ..... Fanning, O. O.

##### Members

Abercrombie, T. F., State Capitol,  
 Atlanta  
 Able, L. G., Grady Hospital, Atlanta  
 (Asso.)  
 Adams, C. M., 23 West Paces Ferry Rd.,  
 Atlanta  
 Adams, C. R., 840 Gordon St., S. W.,  
 Atlanta  
 Adams, H. M. S., Candler Bldg., Atlanta  
 Agnor, Elbert B., Medical Arts Bldg.,  
 Atlanta  
 Aiken, W. S., First Nat'l Bank Bldg.,  
 Atlanta  
 Alden, H. S., Medical Arts Bldg.,  
 Atlanta  
 Allen, Eustace A., Medical Arts Bldg.,  
 Atlanta  
 Allison, Gordon G., Grant Bldg.,  
 Atlanta  
 Almand, C. A., 717 Brookridge Drive,  
 N. E., Atlanta  
 Anderson, A. Burton, Trust Co. of Ga.  
 Bldg., Atlanta  
 Anderson, Chas A., Emory University  
 Hospital, Emory University (Asso.)  
 Anderson, Egbert V., Henrietta Egleston  
 Memorial Hospital, Atlanta (Asso.)  
 Anderson, Wm. W., 478 Peachtree St.,  
 N. E., Atlanta  
 Archer, Geo. F., Grant Bldg., Atlanta  
 Armstrong, T. B., Candler Bldg.,  
 Atlanta  
 Armstrong, W. B., 478 Peachtree St.,  
 N. E., Atlanta  
 Arnold, W. A., Atlanta Nat'l Bldg.,  
 Atlanta  
 Arp, Chas. Raymond, Candler Bldg.,  
 Atlanta  
 Artaud, F. E., New Port Richey, Fla.  
 (Asso.)

Artega, Oliver, Atlanta Nat'l Bldg.,  
 Atlanta  
 Arthur, J. F., 105 Forrest Ave., N. E.,  
 Atlanta  
 Askew, H. H., Candler Bldg., Atlanta  
 Askew, Rufus A., Candler Bldg.,  
 Atlanta  
 Atkins, F. M., 478 Peachtree St., N. E.,  
 Atlanta  
 Avary, J. C., 969 West Peachtree St.,  
 N. W., Atlanta (Hon.)  
 Aven, C. C., Medical Arts Bldg.,  
 Atlanta  
 Ayer, G. D., 152 Forrest Ave., N. E.,  
 Atlanta  
 Ayers, A. J., Medical Arts Bldg.,  
 Atlanta  
 Baggett, L. G., 478 Peachtree St.,  
 N. E., Atlanta  
 Bailey, M. K., Medical Arts Bldg.,  
 Atlanta  
 Baird, Jas. B., Jr., Medical Arts Bld.,  
 Atlanta  
 Baird, J. Mason, Medical Arts Bldg.,  
 Atlanta  
 Baird, Jas. B., Jr., Medical Arts Bldg.,  
 Atlanta  
 Baker, Luther P., Atlanta Nat'l Bldg.,  
 Atlanta  
 Baker, W. Pope, 971 Springdale Road,  
 N. E., Atlanta (Asso.)  
 Ballenger, E. G., Healey Bldg., Atlanta  
 Ballenger, W. L., 478 Peachtree St.,  
 N. E., Atlanta  
 Bancker, E. A., Jr., 478 Peachtree St.,  
 N. E., Atlanta  
 Barfield, F. M., 10 Pryor St. Bldg.,  
 Atlanta  
 Barfield, Hugh H., 478 Peachtree St.,  
 N. E., Atlanta  
 Barfield, J. R., 592 Clifton Road, N. E.,  
 Atlanta (Asso.)  
 Barnett, Crawford F., Jr., 478 Peachtree  
 St., N. E., Atlanta  
 Barnett, S. T., Jr., 26 Linden Ave.,  
 N. E., Atlanta  
 Barnett, S. T., 26 Linden Ave., N. E.,  
 Atlanta (Hon.)  
 Bartholomew, R. A., 1259 Clifton Rd.,  
 N. E., Atlanta  
 Bateman, Needham B., Jr., Candler  
 Bldg., Atlanta  
 Beasley, B. T., Hurt Bldg., Atlanta  
 Beeier, Jas. Moss, Grady Hospital,  
 Atlanta  
 Bell, Kenneth R., 208 Meisch Bldg.,  
 Sanford, Fla.  
 Benson, H. Bagley, Medical Arts Bldg.,  
 Atlanta  
 Benson, M. T., Medical Arts Bldg.,  
 Atlanta  
 Benson, M. T., Jr., Medical Arts Bldg.,  
 Atlanta  
 Bishop, Everett L., Medical Arts Bldg.,  
 Atlanta  
 Bivings, F. Lee, 20 Fourth St., N. W.,  
 Atlanta  
 Bivings, Wm. Troy, 756 Cypress St.,  
 N. E., Atlanta  
 Bivings, Wm. Troy, Jr., 756 Cypress  
 St., N. E., Atlanta  
 Blackford, L. Minor, 104 Ponce de Leon  
 Ave., N. E., Atlanta  
 Blackman, W. W., 418 Capitol Ave.,  
 S. E., Atlanta  
 Blalock, Frank A., 150 Anderson Ave.,  
 S. W., Atlanta  
 Blalock, John C., Medical Arts Bldg.,  
 Atlanta

- Blandford, W. C., Candler Bldg., Atlanta
- Bleich, J. K., 478 Peachtree St., N. E., Atlanta
- Boland, Chas. G., 157 Forrest Ave., N. E., Atlanta
- Boland, Frank K., 478 Peachtree St., N. E., Atlanta
- Boland, F. Kells, Jr., 478 Peachtree St., N. E., Atlanta
- Boland, Jos. H., 478 Peachtree St., N. E., Atlanta
- Boling, Edgar, 478 Peachtree St., N. E., Atlanta
- Bourbon, Rolio P., Fort McPherson (Asso.)
- Bowcock, Chas. M., 132 West Wesley Ave., N. W., Atlanta (Hon.)
- Bowcock, H. M., 478 Peachtree St., N. E., Atlanta
- Bowdoin, C. D., State Board of Health, State Capitol, Atlanta
- Boyd, Ben H., Grant Bldg., Atlanta
- Boyd, Montague L., 563 Capitol Ave., S. W., Atlanta
- Boynton, Chas. E., Jr., 478 Peachtree St., N. E., Atlanta
- Boynton, C. E., 478 Peachtree St., N. E., Atlanta
- Bradfield, Jos. H., Battle Hill Sanatorium, Atlanta (Asso.) (deceased)
- Bradford, Henry C., Fort McPherson (Asso.)
- Brawner, A. F., Brawner's Sanitarium, Smyrna
- Brawner, James N., Brawner's Sanitarium, Smyrna
- Brawner, Jas. N., Jr., Zephyr Hills Sanatorium, Asheville, N. C. (Asso.)
- Brawner, L. E., Medical Arts Bldg., Atlanta
- Brown, Lester A., 478 Peachtree St., N. E., Atlanta
- Brown, S. Ross, 11 Hunter St., S. W., Atlanta
- Brown, S. T., Medical Arts Bldg., Atlanta
- Brown, Samuel Y., 478 Peachtree St., N. E., Atlanta
- Bucknell, Howard, 12 East 44th St., New York City
- Bullard, T. P., Palmetto
- Bunce, Allen H., 139 Forrest Ave., N. E., Atlanta
- Burch, J. C., Anderson Ave., S. W., Atlanta
- Burgess, Taylor S., Medical Arts Bldg., Atlanta
- Burke, B. Russell, 478 Peachtree St., N. E., Atlanta
- Butner, J. Hendrick, 73 Eleventh St., N. E., Atlanta
- Byram, James H., Grand Theater Bldg., Atlanta
- Byrd, Edwin S., 478 Peachtree St., N. E., Atlanta
- Byrd, T. L., 478 Peachtree St., N. E., Atlanta
- Calhoun, F. P., 478 Peachtree St., N. E., Atlanta
- Callaway, J. T., 1514 Rogers Ave., S. E., Atlanta (Asso.)
- Camp, R. T., Fairburn
- Camp, W. R., Fairburn (Hon.)
- Campbell, J. L., 478 Peachtree St., N. E., Atlanta
- Campbell, W. E., Jr., Medical Arts Bldg., Atlanta
- Cantor, I. B., St. Joseph's Infirmary, Atlanta (Asso.)
- Carr, David T., Grady Hospital, Atlanta (Asso.)
- Cathcart, Don F., 478 Peachtree St., N. E., Atlanta
- Catron, I. T., Candler Bldg., Atlanta (Hon.)
- Champion, W. L., 478 Peachtree St., N. E., Atlanta
- Chappell, Amey, 478 Peachtree St., N. E., Atlanta
- Childs, J. R., Medical Arts Bldg., Atlanta
- Childs, LeRoy W., Lake Kerr, Fla. (Asso.)
- Christopher, F. E., Hurt Bldg., Atlanta
- Ciaiborne, T. Sterling, Medical Arts Bldg., Atlanta
- Clark, J. J., 478 Peachtree St., N. E., Atlanta
- Clarke, M. L. B., Candler Bldg., Atlanta
- Clay, Grady E., Medical Arts Bldg., Atlanta
- Clemons, Harry H., Grady Hospital, Atlanta (Asso.)
- Clifton, Ben H., 478 Peachtree St., N. E., Atlanta
- Cline, B. McH., Grand Theater Bldg., Atlanta
- Cochran, Hugh, Medical Arts Bldg., Atlanta
- Cofer, Olin S., 478 Peachtree St., N. E., Atlanta
- Cole, G. C., 907 Marietta St., Atlanta (Asso.)
- Coleman, R. C., Jr., Healey Bldg., Atlanta
- Collier, T. J., 1781 Peachtree St., N. E., Atlanta
- Collison, Caroline H., Crawford W. Long Memorial Hospital, Atlanta (Asso.)
- Collinsworth, A. M., Candler Bldg., Atlanta
- Colvin, E. D., 1259 Clifton Road, N. E., Atlanta
- Colvin, E. S., Healey Bldg., Atlanta
- Colvin, S. H., Jr., 1677 Gordon St., S. W., Atlanta
- Combs, J. A., 478 Peachtree St., N. E., Atlanta
- Cooke, Virgil C., Healey Bldg., Atlanta
- Copeloff, M. B., Grant Bldg., Atlanta
- Coppedge, W. W., 114½ North Main St., East Point
- Corley, F. L., Atlanta Nat'l Bldg., Atlanta
- Cousins, W. L., Candler Bldg., Atlanta
- Cox, Robert H., Jr., Grady Hospital, Atlanta (Asso.)
- Cowan, Z. S., Grand Theater Bldg., Atlanta
- Crawford, Clyde L., Medical Arts Bldg., Atlanta
- Crawford, H. C., 478 Peachtree St., N. E., Atlanta
- Crawford, J. H., Grant Bldg., Atlanta
- Cross, Jno. B., Medical Arts Bldg., Atlanta
- Crowe, Wm. R., Medical Arts Bldg., Atlanta
- Curtis, Walker L., College Park
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**HANCOCK COUNTY****Officers**

President Darden, Horace  
 Secretary-Treasurer Earl, H. L.  
 Delegate Jernigan, C. S.  
 Alternate Delegate Earl, H. L.

**Members**

Darden, Horace, Sparta  
 Earl, H. L., Sparta  
 Ensign, Paul R., Sparta  
 Griffin, R. B., Marietta  
 Hutchings, Ernest H., Sparta  
 Jernigan, C. S., Sparta

**HARALSON COUNTY****Officers**

President Sanford, E. F.  
 Vice-President Curtis, W. C.  
 Secretary-Treasurer King, O. D.  
 Delegate King, O. D.

**Members**

Brock, W. B., Tallapoosa (Hon.)  
 Curtis, W. C., Fairhurst, Ala.  
 Downey, C. W., Bremen  
 Eaves, B. F., Draketown  
 Gilmore, E. L., Tallapoosa (Hon.)  
 Hutcheson, E. B., Buchanan (Hon.)  
 King, O. D., Bremen  
 Reid, Jno. F., Buchanan (Hon.)  
 Sanford, E. F., Buchanan

**HART COUNTY****Officers**

President Meredith, A. O.  
 Vice-President Teasley, H. E.  
 Secretary-Treasurer Harper, G. T.  
 Delegate McCurry, W. E.

**Members**

Harper, G. T., Dewyrose, R. 2  
 Jenkins, J. C., Hartwell  
 Jenkins, J. I., Hartwell, R. 1  
 McCurry, A. O., Hartwell  
 Meredith, A. O., Hartwell  
 Teasley, B. C., Hartwell  
 Teasley, Harry E., Hartwell

**HENRY COUNTY****Officers**

President Ellis, H. C.  
 Vice-President Crawford, R. L.  
 Secretary-Treasurer Colvin, E. G.  
 Delegate Brandon, R. V.

**Members**

Brandon, R. V., McDonough

Carmichael, W. W. Hampton (Hon.)  
 (deceased)

Colvin, E. G., Locust Grove  
 Crawford, R. L., Locust Grove  
 Ellis, H. C., McDonough

**HOUSTON-PEACH COUNTIES****Officers**

President Story, J. W.  
 Vice-President Evans, H. E.  
 Secretary-Treasurer Cater, R. L.  
 Delegate Story, J. W.

**Members**

Cater, R. L., Perry  
 Evans, H. E., Perry  
 Story, J. W., Perry

**JACKSON-BARROW COUNTIES****Officers**

President Russell, Alex B.  
 Vice-President Campbell, J. H.  
 Secretary-Treasurer Lord, C. B.

**Members**

Allen, L. C., Hoschton  
 Allen, M. B., Hoschton  
 Bowdoin, W. H., Statham  
 Bryson, L. R., Pendergrass (Hon.)  
 Campbell, J. H., Commerce  
 Harris, E. R., Winder  
 Lord, C. B., Jefferson  
 Mathews, W. L., Winder  
 McDonald, E. M., Winder, R. 3  
 Pittman, O. C., Commerce  
 Randolph, W. T., Winder  
 Rogers, A. A., Commerce  
 Russell, Alex B., Winder  
 Sanders, Laetus, Commerce  
 Scoggins, P. T., Commerce  
 Stinchcomb, R. P., Pendergrass (Hon.)  
 Stovall, J. T., Jefferson

**JASPER COUNTY****Officers**

Secretary-Treasurer Lancaster, E. M.  
 Delegate Belcher, F. S.

**Members**

Anderson, J. F., Hillsboro (Hon.)  
 (deceased)  
 Belcher, F. S., Monticello  
 Brown, J. A., Shady Dale  
 Lancaster, E. M., Shady Dale  
 Pittard, L. Y., Monticello

**JEFFERSON COUNTY****Officers**

President Williams, C. Roy  
 Vice-President Bryant, V. L.  
 Secretary-Treasurer Revell, S. T. R.  
 Delegate Revell, S. T. R.  
 Alternate Delegate Pilcher, J. J.

**Members**

Bryant, V. L., Bartow  
 Ketchin, S. C., Louisville  
 Pilcher, Jno. J. Wrens  
 Revell, S. T. R., Louisville  
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**JENKINS COUNTY****Officers**

President Mulkey, Q. A.  
 Vice-President Bridges, G. J.  
 Secretary-Treasurer Folk, J. J.  
 Delegate Folk, J. J.  
 Alternate Delegate Muikay, Q. A.

**Members**

Bridges, G. J., Millen  
 Folk, J. J., Millen  
 Lee, H. G., Millen  
 Mulkey, A. P., Millen  
 Mulkey, Q. A., Millen

Thompson, Cleveland, Millen

**LAMAR COUNTY****Officers**

President Pritchett, D. W.  
 Vice-President Willis, C. H.  
 Secretary-Treasurer Traylor, S. B.  
 Delegate Corry, J. A.

**Members**

Corry, J. A., Barnesville  
 Jackson, J. H., Barnesville  
 Pritchett, D. W., Barnesville  
 Traylor, S. B., Barnesville  
 Will's, C. H., Barnesville (deceased)

**LAURENS COUNTY****Officers**

President Ferrell, R. G., Jr.  
 Vice-President Barton, J. J.  
 Secretary-Treasurer Bell, J. A., Jr.  
 Delegate Cheek, O. H.  
 Alternate Delegate Ferrell, R. G., Jr.

**Members**

Barton, J. J., Dublin  
 Bedingfield, R. A., Cadwell  
 Bedingfield, W. E., Rentz  
 Bell, J. A., Jr., Dublin  
 Cheek, O. H., Dublin  
 Claxton, E. B., Dublin  
 Coleman, A. T., Dublin  
 Ferrell, R. G., Jr., Dublin  
 Hicks, Chas. L., Dublin  
 Lanier, L. L., Soperton  
 New, J. E., Dexter  
 Thompson, W. C., Dublin  
 Ware, A. D., Toombsboro

**MACON COUNTY****Officer**

Secretary-Treasurer Adams, T. M.

**Members**

Adams, J. Fred, Montezuma  
 Adams, Thomas M., Montezuma  
 Derrick, H. C., Oglethorpe  
 Frederick, D. B., Marshallville (Hon.)  
 Greer, C. A., Oglethorpe  
 Harp, S. L., Marshallville  
 Lightner, L. L., Ideal  
 Savage, C. P., Montezuma

**McDUFFIE COUNTY****Officers**

President Wilson, J. R.  
 Vice-President Riley, B. F.  
 Secretary-Treasurer Churchill, C. W.  
 Delegate Riley, B. F.

**Members**

Churchill, C. W., Thomson  
 Riley, B. F., Jr., Thomson  
 Wilson, J. R., Thomson

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Secretary-Treasurer Gilbert, R. B.

**Members**

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 Bennett, V. H., Gay  
 Copeland, Benj. H., Shiloh  
 Dixon, J. L., Woodbury  
 Ellis, W. P., Chipley  
 Gilbert, R. B., Greenville  
 Irwin, C. E., Warm Springs  
 Jackson, J. L., Manchester  
 Jackson, T. W., Manchester  
 Johnson, J. A., Manchester  
 Kirkland, W. P., Manchester  
 Peeler, J. E., Woodland

**MITCHELL COUNTY****Officers**

President Stevenson, C. A.  
 Vice-President Brim, J. C.



Secretary-Treasurer Burns, M. M.  
 Delegate Burns, M. M.  
 Alternate Delegate Mobley, J. W.

**Members**

Belcher, D. P., Pelham  
 Brim, J. C., Pelham  
 Burns, M. M., Pelham  
 Clements, J. R., Pelham (Hon.)  
 Hammond, J. T., Camilla (Hon.)  
 Luke, D. P., Camilla  
 Mobley, J. W., Jr., Pelham  
 Rainey, C. O., Camilla  
 Reid, C. W., Pelham  
 Roles, C. L., Camilla  
 Stevens, A. T., Sale City (Hon.)  
 Stevenson, C. A., Camilla  
 Ward, J. W., Baconton (Hon.)  
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**MONROE COUNTY****Officers**

President ..... Smith, W. J.  
 Secretary-Treasurer Alexander, G. H.

**Members**

Alexander, G. H., Forsyth  
 Goolsby, R. C., Sr., Forsyth (Hon.)  
 Smith, B. L., Forsyth  
 Smith, W. J., Juliette  
 Work, S. D., Jr., Forsyth

**MONTGOMERY COUNTY****Officers**

President ..... Moses, W. M.  
 Vice President ..... Hunt, J. E.  
 Secretary-Treasurer Palmer, J. W.  
 Delegate ..... Sharpe, H. C.

**Members**

Hunt, J. E., Mt. Vernon  
 Moses, W. M., Uvalda  
 Palmer, J. W., Ailey  
 Sharpe, H. C., Alston

**MORGAN COUNTY****Officers**

President ..... Carter, D. M.  
 Vice President ..... Nicholson, J. H.  
 Secretary-Treasurer McGeary, W. C.  
 Delegate ..... Nicholson, J. H.

**Members**

Carter, D. M., Madison  
 Fambrough, W. M., Bostwick  
 McGeary, W. C., Madison  
 Nicholson, J. H., Madison  
 Porter, J. L., Rutledge  
 Prior, Felix M., Apalachee (Hon.)  
 (deceased)

**MUSCOGEE COUNTY****Officers**

President ..... Schley, F. B.  
 Vice-President ..... Berry, A. N.  
 Secretary-Treasurer Storey, W. Edward  
 Delegate ..... Jordan, W. P.  
 Alternate Delegate ..... Jenkins, W. F.

**Members**

Baier, Geo. F. III, Fort Benning (Asso.)  
 Baker, E. L., Doctors Bldg., Columbus  
 Berardinelli, Stephen D., Fort Benning  
 (Asso.)  
 Berman, Dave, Doctors Bldg., Columbus  
 Berry, Arthur N., Murrah Bldg.,  
 Columbus  
 Berry, Morgan C., Fort Benning (Asso.)  
 Blackmar, Francis B., Swift Bldg.,  
 Columbus  
 Blanchard, Mercer, Swift Bldg.,  
 Columbus

Braunnen, O. C., Murrah Bldg.,  
 Columbus  
 Bratley, F. G., City Hospital, Columbus  
 Bush, John 313 Fourteenth St.,  
 Columbus  
 Carter, C. B., 1545 Third Ave.,  
 Columbus  
 Chambers, J. W., Pine Mountain  
 Valley  
 Chaney, Thos. M., Fort Benning (Asso.)  
 Christian, Wm. H., Fort Benning  
 (Asso.)  
 Conner, Geo. R., 1229 Second Ave.,  
 Columbus  
 Cook, Wm. C., Swift Bldg., Columbus  
 Cooke, W. L., Doctors Bldg., Columbus  
 Crawford, James P., Fort Benning  
 (Asso.)  
 Dear, Wm. R., Fort Benning (Asso.)  
 Denison, Walcott, Fort Benning (Asso.)  
 Dillard, Guy J., Murrah Bldg.,  
 Columbus  
 Dykes, A. N., 1229 Second Ave.,  
 Columbus  
 Edwards, F. D., 1344 Second Ave.,  
 Columbus  
 Gaston, Joseph H., 1409 Fourth Ave.,  
 Columbus  
 Gibson, Horace C., Fort Benning  
 (Asso.)  
 Gibson, John S., Fort Benning (Asso.)  
 Gibson, R. L., Murrah Bldg., Columbus  
 Gilliam, O. D., Doctors Bldg., Columbus  
 Hamilton, Gladden R., Fort Benning  
 (Asso.)  
 Harris, Wendell P., Fort Benning  
 (Asso.)  
 Hesner, Geo. E., Fort Benning (Asso.)  
 Hewitt, Ragsdale, Columbus City  
 Hospital, Columbus  
 Jenkins, W. F., Columbus City  
 Hospital, Columbus  
 Johnson, C. D., Murrah Bldg.,  
 Columbus  
 Johnson, J. H., Murrah Bldg.,  
 Columbus  
 Jones, Wm. R., Doctors Bldg.,  
 Columbus  
 Jordan, W. P., Doctors Bldg., Columbus  
 Kirkpatrick, Chas. L., Fort Benning  
 (Asso.)  
 Knott, Wm. C., Fort Benning (Asso.)  
 Lieberman, Harry, Columbus City  
 Hospital, Columbus (Asso.)  
 Mason, Richard P., Fort Benning  
 (Asso.)  
 Mayher, J. W., 1344 Second Ave.,  
 Columbus  
 Mayher, Will E., 1344 Second Ave.,  
 Columbus  
 McCullough, Homer C., Fort Benning  
 (Asso.)  
 McDuffie, J. H., Jr., 1120 Third Ave.,  
 Columbus  
 McHale, Donald G., Fort Benning  
 (Asso.)  
 McWhorter, M. R., 313 Fourteenth St.,  
 Columbus  
 Moses, Alice, 1413 Second Ave.,  
 Columbus  
 Murray, G. S., Swift Bldg., Columbus  
 Norman, Frank P., Masonic Temple,  
 Columbus  
 North, W. D., Fort Benning (Asso.)  
 Noyes, Edward A., Fort Benning  
 (Asso.)

Peacock, C. A., Murrah Bldg.,  
 Columbus  
 Qualls, Guy L., Fort Benning (Asso.)  
 Reimhardt, Wm. R. L., Fort Benning  
 (Asso.)  
 Rudolph, Myron P., Fort Benning  
 (Asso.)  
 Schaeffer, Elsa, Columbus City  
 Hospital, Columbus (Asso.)  
 Scheye, Heinz, Columbus City Hospital,  
 Columbus (Asso.)  
 Schley, Francis B., Swift Bldg.,  
 Soper, LeRoy D., Fort Benning,  
 Columbus (Asso.)  
 Spikes, J. L., Doctors Bldg., Columbus  
 Stammell, Chas. A., Fort Benning  
 (Asso.)  
 Stapleton, J. L., Doctors Bldg.,  
 Columbus  
 St. John, Clement F., Fort Benning  
 (Asso.)  
 Storey, W. Edward, Swift Bldg.,  
 Columbus  
 Thompson, J. B., Swift Bldg., Columbus  
 Thrash, J. A., Doctors Bldg., Columbus  
 Tillery, Bert, Swift Bldg., Columbus  
 Walker, John E., Masonic Bldg.,  
 Columbus  
 Waitrip, Oliver H., Fort Benning  
 (Asso.)  
 Willis, J. N., Swift Bldg., Columbus  
 Wilson, Frank W., Fort Benning  
 (Asso.)  
 Winn, J. H., Swift Bldg., Columbus  
 Wooldridge, J. C., Murrah Bldg.,  
 Columbus  
 Youmans, J. R., Doctors Bldg.,  
 Columbus  
 Young, S. E., Midland

**NEWTON COUNTY****Officers**

Secretary-Treasurer ..... Travis, W. D.

**Members**

Huson, W. Joseph, Covington  
 Loveless, J. C., Porterdales  
 Palmer, C. B., Covington  
 Sams, J. R., Covington  
 Travis, W. D., Covington  
 Wilson, Pleas, Newborn  
 Moore, Haywood L., Porterdales

**OCMULGEE SOCIETY**

(Bleckley-Dodge-Pulaski Counties)

**Officers**

President ..... Tolleson, H. M.  
 Vice President ..... Whipple, R. L.  
 Secretary-Treasurer ..... Parkerson, I. J.  
 Delegate ..... Coleman, W. A.

**Members**

Anderson, Geo. M., Eastman  
 Adkins, H. T., Cochran  
 Barker, N. L., Eastman (Hon.)  
 Batts, A. S., Hawkinsville  
 Brown, E. C., Hawkinsville (deceased)  
 Bush, Albert R., Hawkinsville  
 Coleman, W. A., Eastman  
 Holder, F. P., Jr., Eastman  
 Massey, W. F., Chester  
 Parkerson, I. J., Eastman  
 Smith, J. M., Cochran  
 Tolleson, H. M., Eastman  
 Wall, J. C., Eastman  
 Whipple, R. L., Cochran  
 Williamson, J. G., Rhine (Hon.)

**POLK COUNTY****Officers**

President ..... Whitely, Seals L.

Vice President — Wood, Chas. V.  
 Secretary-Treasurer McGehee, Jno. M.  
 Delegate ..... Chaudron, P. O.  
 Alternate Delegate ..... Whitley, Seals L.

**Members**

Chapman, W. A., Cedartown (Hon.)  
 Caudron, P. O., Cedartown  
 Cooper, J. J., Cedartown  
 Goldin, Robert B., Rockmart  
 Good, Jno. W., Cedartown  
 McBryde, T. E., Rockmart  
 McGehee, John M., Cedartown  
 Peek, C. W., Cedartown  
 White, Geo. M., Rockmart  
 Whitley, Seals L., Cedartown  
 Wood, C. V., Cedartown

**RABUN COUNTY****Officers**

President ..... Dover, J. C.  
 Secretary-Treasurer ..... Green, J. A.  
 Delegate ..... Green, J. A.

**Members**

Dover, J. C., Clayton  
 Green, J. A., Clayton

**RANDOLPH COUNTY****Officers**

President ..... Harper, T. F.  
 Vice President ..... Crook, W. W.  
 Secretary-Treasurer ..... Elliott, W. G.  
 Delegate ..... Gary, Loren, Jr.  
 Alternate Delegate ..... Martin, F. M.

**Members**

Beason, Lewis, Butler  
 Binion, W. W., Benevolence (Hon.)  
 Carter, Geo. Bluffton (Hon.)  
 Crook, W. W., Cuthbert  
 Elliott, W. G., Cuthbert  
 Gary, Loren, Georgetown  
 Gary, Loren, Jr., Shellman  
 Harper, T. F., Coleman  
 Martin, F. M., Shellman  
 Massengale, Leonard R., Lumpkin  
 McCurdy, E. C., Shellman  
 Patterson, J. C., Cuthbert  
 Rogers, F. S., Coleman  
 Saurez, Annette McD., Cuthbert (Hon.)  
 Shelley, W. P., Albany (Hon.)

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President ..... Michel, H. M.  
 Vice President ..... Mountain, Geo. W.  
 Secretary-Treasurer Goodwin, Thos. W.  
 Delegate ..... Cranston, W. J.  
 Delegate ..... Holmes, L. P.

**Members**

Agee, M. P., Southern Finance Bldg.,  
 Augusta  
 Akerman, Joseph, 831 Fifteenth St.  
 Augusta  
 Battey, Colden R., 638 Greene St.,  
 Augusta  
 Battey, W. W., Jr., 428 Sixth St.,  
 Augusta  
 Bernard, G. T., 203 Thirteenth St.,  
 Augusta  
 Blanchard, C. A., 206 Seventh St.,  
 Augusta  
 Blanchard, P. G., Appling  
 Briggs, A. P., University Hospital,  
 Augusta  
 Brittingham, John W., 1345 Greene St.,  
 Augusta  
 Brown, T. P., Marion Bldg., Augusta

Burdashaw, J. F., Johnson Bldg.,  
 Augusta  
 Burdshaw, Wm. J., U. S. Veterans'  
 Administration Facility, Augusta  
 Burpee, C. M., University Hospital,  
 Augusta  
 Butler, J. H., Southern Finance Bldg.,  
 Augusta  
 Cardwell, E. S., Jr., University of Ga.  
 School of Medicine, Augusta  
 Chaney, Ralph H., 1001 Greene St.,  
 Augusta  
 Cleckley, Hervey M., University  
 Hospital, Augusta  
 Corbitt, Melvis O., 1309 Holden St.,  
 Augusta  
 Cranston, W. J., Southern Finance  
 Bldg., Augusta  
 Crichton, Robert B., 1633 Connecticut  
 Ave., Washington, D. C.  
 Davidson, A. A., 1116 Greene St.,  
 Augusta  
 Goodrich, W. H., Southern Finance  
 Bldg., Augusta  
 Goodwin, T. W., 1345 Greene St.,  
 Augusta  
 Gray, J. D., 1345 Greene St., Augusta  
 Greenblatt, Robert B., 1001 Greene St.,  
 Augusta  
 Harper, Harry T., Jr., Southern  
 Finance Bldg., Augusta  
 Henry, C. G., Southern Finance Bldg.,  
 Augusta  
 Hensley, E. A., Gibson  
 Holmes, L. P., Southern Finance Bldg.,  
 Augusta  
 Kelly, G. Lombard, University of Ga.  
 School of Medicine, Augusta  
 Kershaw, Marie M., 217 Thirteenth St.,  
 Augusta  
 Kilpatrick, A. J., 407 Seventh St.,  
 Augusta  
 Kilpatrick, Chas. M., 1345 Greene St.,  
 Augusta  
 Lee, F., Lansing, Southern Finance  
 Bldg., Augusta  
 Leonard, Robert B., 1001 Greene St.,  
 Augusta  
 Levy, M. S., Southern Finance Bldg.,  
 Augusta  
 Lewis, S. J., Southern Finance Bldg.,  
 Augusta  
 Mathews, W. E., Southern Finance  
 Bldg., Augusta  
 May, E. R., Lincolnton  
 McDaniel, J. Z., 1345 Greene St.,  
 Augusta  
 McGahee, R. C., 1345 Greene St.,  
 Augusta  
 Mealing, H. G., 3 Forest Ave., North  
 Augusta, S. C.  
 Mettler, F. A., University Hospital,  
 Augusta  
 Michel, H. M., Southern Finance Bldg.,  
 Augusta  
 Mountain, G. W., 2612 Walton Way,  
 Augusta  
 Mulherin, Chas. M., 1211 Greene St.,  
 Augusta  
 Mulherin, F. X., 1001 Greene St.,  
 Augusta  
 Mulherin, Philip A., 1211 Greene St.,  
 Augusta  
 Mulherin, Wm. A., 1211 Greene St.,  
 Augusta  
 Murphey, Eugene E., 432 Telfair St.,  
 Augusta

Norvell, J. T., 1240 Greene St., Augusta  
 Page, Hugh N., Southern Finance  
 Bldg., Augusta  
 Philpot, W. K., 1345 Greene St.,  
 Augusta  
 Phinizy, Irvine, Southern Finance  
 Bldg., Augusta  
 Phinizy, Thomas, 501 Greene St.,  
 Augusta  
 Price, W. T., Montgomery Bldg.,  
 Augusta  
 Pund, Edgar R., University of Ga.  
 School of Medicine, Augusta  
 Rhodes, R. L., Southern Finance Bldg.,  
 Augusta  
 Roberts, W. H., 828 Greene St.,  
 Augusta  
 Robertson, J. Righton, 1345 Greene St.,  
 Augusta  
 Roule, J. Victor, Southern Finance  
 Bldg., Augusta  
 Sanderson, E. S., University of Ga.  
 School of Medicine, Augusta  
 Schwall, Edward W., State Training  
 School, Gracewood  
 Sherman, John H., 1122 Johns Road,  
 Augusta  
 Slaughter, R. F., University Hospital,  
 Augusta  
 Sydenstricker, V. P., University  
 Hospital, Augusta  
 Tannenbaum, S., Southern Finance  
 Bldg., Augusta  
 Tessier, Claude E., Masonic Temple,  
 Augusta  
 Thomas, D. R., Jr., Southern Finance  
 Bldg., Augusta  
 Thurmond, A. G., 1345 Greene St.,  
 Augusta  
 Thurmond, J. W., 407 Seventh St.,  
 Augusta  
 Timmons, C. C., 415 Milledge Road,  
 Augusta  
 Todd, L. N., University Hospital,  
 Augusta  
 Torpin, Richard, University of Ga.  
 School of Medicine, Augusta  
 Traylor, Geo. A., 2311 Kings Way,  
 Augusta  
 Volpitto, P. P., University Hospital,  
 Augusta  
 Ward, C. D., 1345 Greene St., Augusta  
 Weeks, R. B., Southern Finance Bldg.,  
 Augusta  
 Wilcox, E. A., 1345 Greene St., Augusta  
 Williams, W. J., Southern Finance  
 Bldg., Augusta  
 Wright, Geo. W., Southern Finance  
 Bldg., Augusta  
 Wright, J. C., 726 Hickman Road,  
 Augusta  
 Wright, P. B., 1345 Greene St.,  
 Augusta

**ROCKDALE COUNTY****Officers**

President ..... Brown, P. J.  
 Secretary-Treasurer ..... Griggs, H. E.  
 Delegate ..... Griggs, H. E.

**Members**

Brown, P. J., Conyers  
 Griggs, H. E., Conyers  
 Smith, P. S., Conyers deceased)

**SCREVEN COUNTY****Officer**

Secretary-Treasurer ..... Bennett, W. H.

**Members**

Bennett, W. H., Sylvania  
Rushing, W. E., Millhaven

**SOUTH GEORGIA MEDICAL SOCIETY**

(Berrien, Clinch, Cook, Echols, Lanier  
and Lowndes Counties)

**Officers**

President ..... Askew, P. H., Jr.  
Vice President ..... Smith, T. H.  
Secretary-Treasurer ..... Turner, W. W.  
Alternate Delegate ..... Ring, L. J.

**Members**

Askew, P. H., Jr., Nashville  
Bird, Frank, Valdosta  
Clements, H. W., Adel  
Eldridge, F. G., Valdosta  
Farber, M. E., G. S. C. W., Valdosta  
Hutchinson, L. R., Adel  
Johnson, A. M., Valdosta  
Little, A. G., Valdosta  
Owens, B. C., Valdosta  
Quillian, E. P., Clyattville  
Ring, L. J., Lenox  
Saunders, A. F., Valdosta  
Shepard, W. M., Adel (Hon.)  
Smith, E. J., Hahira  
Smith, J. R., Hahira  
Smith, Louis, Lakeland  
Smith, Tom H., Valdosta  
Talbot, T. M., Valdosta (Hon.)  
(deceased)  
Thomas, F. H., Valdosta  
Thompson, E. F., Valdosta  
Turner, W. W., Nashville  
Williams, T. C., Valdosta

**SPALDING COUNTY****Officers**

President ..... Smaha, T. G.  
Vice President ..... Copeland, H. J.  
Secretary-Treasurer ..... Leslie, J. T.  
Delegate ..... Miles, W. C.  
Alternate Delegate ..... Head, M. M.

**Members**

Anthony, J. R., Griffin (Hon.)  
Carson, M. F., Griffin (Hon.)  
Copeland, H. J., Griffin  
Copeland, H. W., Griffin  
Forrer, D. A., Griffin  
Frye, A. H., Griffin  
Grubbs, J. H., Molena  
Hawkins, T. I., Griffin  
Head, D. L., Zebulon  
Head, M. M., Zebulon  
Howard, I. B., Williamson  
Hunt, Kenneth S., Griffin  
Leslie, J. T., Griffin  
Mallory, R. A., Concord (Hon.)  
Smaha, Tofey, G. Griffin  
Vinson, T. O., Griffin  
Walker, Geo. L., Griffin

**STEPHENS COUNTY****Officers**

President ..... Heller, W. B.  
Vice President ..... Isbell, J. E. D.  
Secretary-Treasurer ..... Ayers, C. L.  
Delegate ..... Schaefer, W. B.  
Alternate Delegate ..... Isbell, J. E. D.

**Members**

Ayers, C. L., Toccoa  
Chaffin, E. F., Toccoa  
Edge, J. H., Toccoa (Hon.)  
Heller, W. B., Toccoa  
Isbell, J. E. D., Toccoa

Schaefer, W. B., Toccoa  
Swain, W. H., Martin  
Terrell, J. H., Toccoa

**STEWART-WEBSTER COUNTIES****Officers**

President ..... Kenyon, J. M.  
Secretary-Treasurer ..... Sims, A. R.

**Members**

Kenyon, J. M., Richland  
Lunsford, J. F., Preston  
Sims, A. R., Richland

**SUMTER COUNTY****Officers**

President ..... Castellow, W. F.  
Vice President ..... Stukes, J. T.  
Secretary-Treasurer ..... Enzor, R. H.  
Delegate ..... Smith, H. A.

**Members**

Avary, Arch, Jr., Ellaville  
Boggs, H. L., Cobb  
Boyette, L. S., Ellaville  
Castellow, W. F., Americus  
Chambliss, J. W., Americus  
Enzor, R. H., Smithville  
Logan, J. C., Plains  
McMath, J. F., Americus (Hon.)  
Pendergrass, R. C., Americus  
Prather, W. S., Americus  
Primrose, A. C., Americus  
Scruggs, S. A., Americus  
Smith, Herschel A., Americus  
Stukes, J. T., Americus  
Wise, B. T., Americus  
Wise, S. P., Americus

**TALBOT COUNTY****Member**

Leonard, W. P., Talbotton

**TATTNALL COUNTY****Officers**

President ..... Branch, A. C.  
Vice President ..... Jelks, L. R.  
Secretary-Treasurer ..... Hughes, J. M.  
Delegate ..... Strickland, L. V.

**Members**

Bowen, J. H., Cobbtown (Hon.)  
Branch, A. C., Glennville  
Collins, J. C., Collins  
Hughes, J. M., Glennville  
Jelks, L. R., Reidsville  
Kennedy, J. J., Collins (Hon.)  
(deceased)  
Kicklighter, R. B., Glennville  
Strickland, L. V., Cobbtown  
Tootle, G. W., Glennville  
Walling, C. B., Collins

**TAYLOR COUNTY****Officers**

President ..... Sams, F. H.  
Vice President ..... Bryan, S. H.  
Secretary-Treasurer ..... Montgomery, R. C.

**Members**

Bryan, S. H., Reynolds  
Montgomery, R. C., Butler  
Sams, F. H., Reynolds

**TELFAR COUNTY****Officers**

President ..... Mann, F. R.  
Secretary-Treasurer ..... Harbin, F. P.  
Delegate ..... Stillwell, J. D.  
Alternate Delegate ..... Maloy, C. J.

**Members**

Born, W. H., McRae

Fussell, J. K., Rhine, R. 1  
Harbin, F. P., Lumber City  
Kennon, B. M., McRae (Hon.)  
Kusnitz, Morris J., Alamo  
Maloy, C. J., Helena  
Mann, F. R., McRae  
Neal, J. W., Scotland (Hon.)  
Parkerson, S. T., McRae  
Persall, John T., Jr., McRae  
Stillwell, J. D., McRae  
Youmans, C. R., Lumber City

**TERRELL COUNTY****Officers**

President ..... Chappell, Guy  
Vice President ..... Tidmore, J. C.  
Secretary-Treasurer ..... Kenyon, S. P.  
Delegate ..... Kenyon, S. P.  
Alternate Delegate ..... Arnold, J. T.

**Members**

Arnold, J. T., Parrott  
Chappell, Guy, Dawson  
Cranford, O. G., Sasser (Hon.)  
Dean, J. G., Dawson (Hon.)  
Henderson, Clair A., Dawson  
Kenyon, S. P., Dawson  
Lamar, Lucius, Dawson  
Lewis, J. H., Dawson  
Tidmore, Joseph C., Dawson

**THOMAS COUNTY****Officers**

President ..... Lundy, L. L.  
Vice President ..... Collins, J. J.  
Secretary-Treas. .... Bellhouse, Helen W.  
Delegate ..... Hill, Roy A.  
Alternate Delegate ..... Bell, Rudolph

**Members**

Ainsworth, Harry, Thomasville  
Bell, Rudolph, Thomasville  
Bellhouse, Helen W., Thomasville  
Brinson, J. B., Monticello, Fla. (Hon.)  
Brooks, Fletcher H., Thomasville  
(Hon.)  
Cheshire, S. L., Thomasville  
(deceased)  
Collins, J. J., Thomasville  
Daniel, Frank C., Pavo  
Erickson, Mary J., Thomasville  
Ferguson, C. H., Thomasville  
Futch, T. A., Jr., Thomasville  
Garrett, J. A., Meigs  
Glover, G. B., Monticello, Fla. (Hon.)  
(deceased)  
Hill, Roy A., Thomasville  
Isler, J. N., Meigs  
Jarrell, W. W., Thomasville  
Jones, Henry, Coolidge (Hon.)  
(deceased)  
King, J. T., Thomasville  
Little, A. B., Thomasville  
Lundy, L. L., Boston  
Moore, H. M., Thomasville  
Palmer, J. B., Thomasville  
Palmer, J. I., Thomasville  
Reading, Herbert F., Thomasville  
Reid, Jas. W., Thomasville  
Sanchez, S. E., Barwick  
Wahl, Ernest F., Thomasville  
Wall, C. K., Thomasville  
Watt, C. H., Thomasville

**TIFT COUNTY****Officers**

President ..... Evans, E. L.  
Vice President ..... Hendricks, W. H.  
Secretary-Treasurer ..... Pittman, C. S.



Delegate ..... Fleming, C. A.

#### Members

Anderson, M. W., Omega  
 Andrews, Agnew, Tifton  
 Evans, E. L., Tifton  
 Fleming, C. A., Tifton  
 Haralson, Robert H., Tifton  
 Hendricks, W. H., Tifton  
 Jones, R. E., Tifton  
 LeRoy, Albert G., Tifton  
 Little, Tom F., Tifton  
 Pickett, F. B., Ty Ty  
 Pittman, Carl S., Tifton  
 Shaw, M. F., Omega  
 Smith, W. T., Tifton  
 Webb, M. L., Tifton  
 Zimmerman, W. F., Tifton

#### TOOMBS COUNTY

##### Officers

President ..... Youmans, H. D.  
 Secretary-Treasurer ..... Aiken, W. W.  
 Delegate ..... Aiken, W. W.  
 Alternate Delegate ..... Darby, V. L.

##### Members

Aiken, W. W., Lyons  
 Darby, V. L., Vidalia  
 Findiey, C. W., Vidalia  
 Gross, O. S., Vidalia  
 Meadows, Jno. M., Vidalia (Hon.)  
 Mercer, J. E., Vidalia  
 Odom, W. W., Lyons  
 Youmans, H. D., Lyons

#### TRI SOCIETY

(Calhoun, Early and Miller Counties)

##### Officers

President ..... Baxley, H. B.  
 Vice President ..... Hays, W. C.  
 Secretary-Treasurer ..... Wall, W. H.  
 Delegate ..... Shepard, W. O.  
 Alternate Delegate ..... Wall, W. H.

##### Members

Barksdale, C. R., Blakely  
 Baughn, E. B., Colquitt (Hon.)  
 Baxley, Harry B., Blakely  
 Baxley, W. C., Blakely  
 Beard, J. S., Edison  
 Bridges, R. R., Leary  
 Hattaway, J. C., Edison  
 Hays, W. C., Colquitt  
 Hendry, J. H., U. S. Tacoma Hospital,  
 Tacoma, Wash.  
 Holland, S. P., Blakely  
 Roberts, C. A., Leary (Hon.)  
 Sharp, C. K., Arlington  
 Shepard, J. L., Damascus  
 Shepard, W. O., Bluffton  
 Standifer, J. G., Blakely  
 Standifer, W. B., Blakely (Hon.)  
 Twitty, C. W., Newton  
 Wall, W. H., Blakely

#### TRI SOCIETY

(Liberty, Long and McIntosh Counties)

##### Officers

President ..... Armistead, I. G.  
 Secretary-Treasurer ..... Middleton, O. D.  
 Delegate ..... Middleton, O. D.

##### Members

Armistead, I. G., Townsend  
 Middleton, O. D., Ludowici  
 Ogden, I. K., Darien

#### TROUP COUNTY

##### Officers

President ..... Amis, F. J., Jr.

Vice President ..... Harvey, C. W.

Secretary-Treasurer ..... Grace, Kenneth D.

Delegate ..... Herman, E. C.

Alternate Delegate ..... Harvey, C. W.

##### Members

Amis, Frank J., Jr., Hogansville  
 Arnold, E. T., Hogansville  
 Avery, R. M., LaGrange  
 Byrd, M. M., West Point  
 Callaway, Enoch, LaGrange  
 Clark, W. H., LaGrange  
 Grace, Kenneth D., LaGrange  
 Hadaway, W. H., LaGrange  
 Hammett, H. H., LaGrange  
 Harvey, C. W., Hogansville  
 Herman, E. C., LaGrange  
 Holder, J. S., LaGrange  
 Lane, I. H., LaGrange  
 Lane, J. E., LaGrange  
 Lee, R. O., LaGrange  
 McCall, W. R., LaGrange  
 McCrummen, L. R., LaGrange  
 McCulloh, Hugh, Jr., West Point  
 Morgan, D. E., LaGrange  
 Morgan, J. C., West Point  
 Newsom, E. T., LaGrange  
 O'Neal, Rance, West Point  
 O'Neal, R. S., LaGrange  
 Park, E. R., LaGrange  
 Phillips, W. P., LaGrange  
 Ridley, F. M., LaGrange  
 Rutland, S. C., LaGrange  
 Slack, H. R., LaGrange (Hon.)  
 Smith, M. E., Grantville  
 Walker, Elmer P., LaGrange  
 Williams, C. O., West Point  
 Williams, Virgil G., Grantville

#### TURNER COUNTY

##### Officers

President ..... Belflower, H. M.  
 Vice President ..... Story, W. L.  
 Secretary-Treasurer ..... Baxter, J. H.

##### Members

Baxter, J. H., Ashburn  
 Belflower, H. M., Sycamore  
 Rawlins, R. D., Rebecca (Hon.)  
 Stephens, L. D., Sycamore  
 Story, W. L., Ashburn  
 Turner, W. J., Ashburn

#### UPSON COUNTY

##### Officers

President ..... Woodall, F. M.  
 Vice President ..... Woodall, J. A.  
 Secretary-Treasurer ..... Blackburn, Jno. D.  
 Delegate ..... Bridges, B. L.  
 Alternate Delegate ..... Adams, B. C.

##### Members

Adams, B. C., Thomaston  
 Barron, H. A., Thomaston (Hon.)  
 Blackburn, J. D., Thomaston  
 Bridges, B. L., Thomaston  
 Carter, R. L., Thomaston  
 Garner, J. E., Thomaston  
 Harris, C. A., The Rock  
 McCurdy, J. W., Thomaston  
 McKenzie, J. M., Thomaston  
 Sappington, T. A., Thomaston  
 Woodall, F. M., Thomaston  
 Woodall, Jas. A., Thomaston

#### WALKER, CATOOSA AND DADE COUNTIES

##### Officers

President ..... Kitchens, S. B.  
 Vice President ..... Hale, B. C.

Secretary-Treasurer ..... Shepard, R. C.

Delegate ..... Hale, B. C.

Alternate Delegate ..... Shields, H. F.

##### Members

Clairborne, John W., Fort Oglethorpe  
 Coulter, R. M., LaFayette  
 Crawford, M. M., Kensington (Hon.)  
 Crowder, Miles S., Fort Oglethorpe  
 Elder, D. G., Chickamauga  
 Gardner, J. L., Sulphur Springs  
 Hale, B. C., Rossville  
 Hammond, D. W., LaFayette  
 Hammond, J. H., LaFayette (Hon.)  
 Hasseltine, Lee L., Fort Oglethorpe  
 Kitchens, S. B., LaFayette  
 Middleton, D. S., Rising Fawn  
 Milton, Paul H., Fort Oglethorpe  
 Murphy, M. W., Ringgold  
 O'Connor, Frank L., Fort Oglethorpe  
 Shepard, Richard C., LaFayette  
 Shields, H. F., Chickamauga  
 Shields, J. A., LaFayette  
 Simonton, Fred H., Chickamauga  
 Stephenson, Chas. W., Ringgold  
 Webb, F. L., Fort Oglethorpe  
 Wood, J. P., Flintstone (Hon.)

#### WALTON COUNTY

##### Officers

President ..... Aycock, T. R.  
 Delegate ..... Boland, S. A.

##### Members

Aycock, T. R., Monroe  
 Boland, S. A., Loganville (deceased)  
 Floyd, Chas. S., Loganville  
 Pirkle, J. A., Monroe  
 Stewart, Philip R., Monroe

#### WARE COUNTY

##### Officers

President ..... Pierce, L. W.  
 Vice President ..... Smith, Leo  
 Secretary-Treasurer ..... McCullough, K.  
 Delegate ..... Reavis, W. F.  
 Alternate Delegate ..... Ferrell, T. J.

##### Members

Atwood, Geo. E., Waycross  
 Bagley, J. B., Waresboro  
 Bradley, D. M., Waycross  
 Brink, F. A., Homerville  
 Bussell, B. R., Rochelle  
 Carswell, H. J., Waycross  
 Collins, Braswell E., Waycross  
 DeLoach, A. W., Waycross  
 Dorminy, A. C., Hoboken  
 Elder, E. B., Erlanger Hospital,  
 Chattanooga, Tenn.  
 Ferrell, T. J., Waycross  
 Flanagan, W. M., Waycross  
 Fleming, A., Folkston  
 Gay, Joseph R., Homerville  
 Hafford, W. C., Waycross  
 Hawkins, L. M., Blackshear  
 Hendry, G. T., Blackshear  
 Huey, H. G., Homerville  
 Johnson, R. L., Waycross  
 Malone, Bert H., Waycross  
 McCullough, Kenneth, Waycross  
 Minchew, B. H., Waycross  
 Mixson, W. D., Waycross  
 Muecke, H. W., Waycross  
 Oden, Louis H., Jr., Blackshear  
 Oden, T. E., Blackshear  
 Penland, J. E., Waycross  
 Pierce, Lovick W., Waycross  
 Pomeroy, W. L., Waycross  
 Reavis, W. F., Waycross

Sawyer, Jas. L., Folkston  
Seaman, H. A., Waycross  
Sharpe, W. W., III, Alma  
Smith, Leo, Waycross  
Stephens, C. M., Waycross  
Walden, K. C., Waycross  
Walker, R. C., Waycross  
Witmer, C. A., Waycross

#### WARREN COUNTY

##### Officers

Secretary-Treasurer: Davis, A. W.  
Delegate: Cason, H. B.

##### Members

Cason, H. B., Jr., Warrenton  
Davis, A. W., Warrenton  
Ware, F. L., Warrenton

#### WASHINGTON COUNTY

##### Officers

President: Helton, B. L.  
Vice President: Cason, W. M.  
Secretary-Treas. Newsome, Emory G.  
Delegate: Taylor, Ralph L.  
Alternate Delegate: Overby, N.

##### Members

Burdett, J. R., Tennille  
Cason, W. M., Sandersville  
Dillard, J. B., Davisboro  
Helton, B. L., Sandersville  
King, W. R., Tennille  
Lennard, O. D., Tennille  
Newsome, Emory G., Sandersville  
Newsome, N. J., Sandersville  
Overby, N., Sandersville  
Rawlings, F. B., Sandersville  
Rogers, O. L., Sandersville  
Taylor, Ralph L., Davisboro  
Vickers, T. E., Harrison

#### WAYNE COUNTY

##### Officers

President: Leaphart, J. A.  
Vice President: Tyre, J. L.

Secretary-Treasurer: Rice, Guy V.  
Delegate: Leaphart, J. A.

##### Members

Colvin, J. T., Jesup  
Gordon, A. J., Jesup  
Leaphart, J. A., Jesup  
Rice, Guy V., Jesup  
Ritch, T. G., Jesup  
Tyre, J. L., Screven

#### WHITFIELD COUNTY

##### Officers

President: Sams, H. L.  
Vice President: Bradford, J. E.  
Secretary-Treasurer: Ault, H. J.  
Delegate: Wood, D. L.

##### Members

Ault, H. J., Dalton  
Bradford, J. E., Spring Place  
Bradley, R. H., Chatsworth  
Broadrick, G. L., Dalton  
Colvard, T. W., Crandall  
Dickie, E. H., Chatsworth  
Easley, Frank B., 602-6 Ga. Ave.,  
Chattanooga, Tenn.  
Engelking, C. F., Dalton  
Erwin, H. L., Dalton  
Kennedy, B. L., Dalton  
Loveless, J. A., Rhea-Meigs Health  
Unit, Dayton, Tenn.  
McAfee, J. G., Dalton  
Rollins, J. C., Dalton  
Sams, Henry L., Dalton  
Shellhorse, E. O., Dalton  
Starr, Trammell, Dalton  
Steed, J. H., Dalton  
Temples, Leo G., Dalton  
Wood, D. Lloyd, Dalton

#### WILCOX COUNTY

##### Officers

President: Williams, L. A.  
Vice President: Mitchell, S. R.  
Secretary-Treasurer: Owens, J. D.

Delegate: Owens, J. D.

##### Members

Bussell, J. A., Rochelle (Hon.)  
Durham, Wm. P., Sasser  
Ellis, S. B., Pitts  
Mitchell, Stephen R., Pineview (Hon.)  
(deceased)  
Owens, J. D., Rochelle  
Williams, L. A., Abbeville (Hon.)

#### WILKES COUNTY

##### Officers

President: Simpson, A. W.  
Vice President: Casteel, L. R.  
Secretary-Treasurer: Wood, O. S.  
Delegate: Gibson, Frank  
Alternate Delegate: Wills, C. E.

##### Members

Casteel, L. R., Metasville  
Cheves, Harry L., Union Point  
Gibson, F. N., Thomson  
Harriss, H. T., Washington  
Nash, T. C., Philomath  
Ragsdale, E. W., Tignall  
Simpson, A. W., Washington  
Smith, R. H., Lincolnton  
Stephens, R. G., Washington  
Wills, C. E., Washington  
Wood, O. S., Washington

#### WORTH COUNTY

##### Officers

President: Tipton, W. C.  
Secretary-Treasurer: Tracy, J. L.  
Delegate: Hendrick, A. G.

##### Members

Bell, Peyton E., Sylvester (Hon.)  
Crumbley, J. J., Sylvester  
Harris, E. C., Sylvester  
Hendrick, A. G., Sylvester  
Sessions, W. W., Sumner (Hon.)  
Sumner, G. S., Sylvester  
Tipton, W. C., Sylvester (Hon.)  
Tracy, J. L., Jr., Sylvester

#### NEWS ITEMS

(Continued from page 489)

discussed by Dr. Wm. R. Minnich and Dr. Warren B. Matthews.

DR. RUSSELL H. OPPENHEIMER, Emory University, spoke before a meeting of the Junior League at the Emory University Hospital, November 2.

THE THIRD DISTRICT MEDICAL SOCIETY met at Dawson on November 8. Titles of papers on the program were: *Some Common Endocrine Disorders in the Female with Special Reference to Treatment with Male Sex Hormones* by Dr. Robert B. Greenblatt, Augusta; *Psychiatric Manifestations of Malnutrition*, Dr. Hervey M. Cleckley, Augusta; *The Selection of Patients for Radiation Therapy—Report of Cases*, Dr. Robert C. Pendergrass, Americus; *Duodenal Intubation in the Diagnosis of Gall Stones*, Dr. John E. Walker, Columbus; *The Treatment of Pneumonia*, Dr. W. G. Elliott, Cuthbert.

DR. W. F. REAVIS, Waycross, spoke before a meeting of the Ware County Medical Society, November 1 on *The Diagnosis of Obscure Pains in the Abdomen and Back*; discussed by Dr. B. H. Minchew, Dr. W. C. Hafford, Dr. K. C. Walden, Dr. T. J. Ferrell, Dr. Kenneth McCullough, Dr. W. D. Mixson. Hosts at

dinner were Dr. G. E. Atwood, Dr. M. M. Harris, Dr. J. E. Penland and Dr. Leo Smith.

BIBB COUNTY MEDICAL SOCIETY met in Ridley Hall, Macon, November 21. Dr. Alvin E. Siegel read a paper on *The Use of Nicotinic Acid in Pellagra and in Other Conditions*.

The Secretary-Treasurer has an inquiry for a practicing physician and registered nurse for about 21 months' work on salaries. Also requests for physicians at other places. If interested, write.

THE SPALDING COUNTY MEDICAL SOCIETY met at the Strickland and Son Memorial Hospital, Griffin, on November 7. Dr. Vernon Powell, Atlanta, spoke on *Treatment of Arthritis*.

DR. N. M. AKERS, Swainsboro, secretary-treasurer of the Emanuel County Medical Society, has reported the officers of the Society for 1940 with the payment of dues for part of the members. This is the first roster of officers to be received at the office of the Association for next year.

DR. W. G. ELLIOTT, Cuthbert, secretary-treasurer of the Randolph County Medical Society, was the first to

(Continued on page 512)













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